REF 03-DOE-00448, 00378-RF-03 DAVK

Rocky Flats Environmental Technology Site

TYPE 1
RECONNAISSANCE LEVEL CHARACTERIZATION REPORT (RLCR)

AREA 5 GROUP 6a CLOSURE PROJECTS
Trailers T130C, T130D, T130E, T130F, T130G & T130H

REVISION 0

April 15, 2003

CLASSIFICATION REVIEW NOT REQUIRED PER EXEMPTION NUMBER CEX-005-02

1/109

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REVISION 0

April 15, 2003

Reviewed by: _____ Date: 4-16-03
Don Risoli, Quality Assurance

Reviewed by: _____ Date: 4/17/03
D P Snyder, RISS ESH&Q Manager

Approved by: _____ Date: 4/17/03
Karen Wiemelt, K-H D&D Project Manager

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ATTACHMENTS

ABBREVIATIONS/ACRONYMS

ACM	Asbestos containing material
Be	Beryllium
CDPHE	Colorado Department of Public Health and the Environment
CERCLA	Comprehensive Emergency Response, Compensation and Liability Act
$DCGL_{EMC}$	Derived Concentration Guideline Level – elevated measurement comparison
$DCGL_W$	Derived Concentration Guideline Level – Wilcoxon Rank Sum Test
D&D	Decontamination and Decommissioning
DDCP	Decontamination and Decommissioning Characterization Protocol
DOE	U S Department of Energy
DPP	Decommissioning Program Plan
DQA	Data quality assessment
DQOs	Data quality objectives
EPA	U.S Environmental Protection Agency
FDPM	Facility Disposition Program Manual
HVAC	Heating, ventilation, air conditioning
HSAR	Historical Site Assessment Report
IHSS	Individual Hazardous Substance Site
IWCP	Integrated Work Control Package
K-H	Kaiser-Hill
LBP	Lead-based paint
LLW	Low-level waste
MARSSIM	Multi-Agency Radiation Survey and Site Investigation Manual
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
NORM	Naturally occurring radioactive material
NRA	Non-Rad-Added Verification
OSHA	Occupational Safety and Health Administration
PARCC	Precision, accuracy, representativeness, comparability and completeness
PCBs	Polychlorinated Biphenyls
PDS	Pre-demolition survey
QC	Quality Control
RCRA	Resource Conservation and Recovery Act
RFCA	Rocky Flats Cleanup Agreement
RFETS	Rocky Flats Environmental Technology Site
RFFO	Rocky Flats Field Office
RLC	Reconnaissance Level Characterization
RLCR	Reconnaissance Level Characterization Report
RSP	Radiological Safety Practices
SVOCs	Semi-volatile organic compounds
TCLP	Toxicity Characteristic Leaching Procedure
TSA	Total surface activity
VOCs	Volatile organic compounds

EXECUTIVE SUMMARY

A Reconnaissance Level Characterization (RLC) was performed to enable facility "Typing" per the DPP (10/8/98) and compliant disposition and waste management of the Area 5, Group 6a facilities (i e , Trailers T130C, T130D, T130E, T130F, T130G and T130H) Because these facilities were anticipated Type 1 facilities, the characterization was performed in accordance with the Pre-Demolition Survey Plan (MAN-127-PDSP) requirements All facility surfaces were characterized in this RLC, including the interior and exterior surfaces (i e , floors, walls, ceilings and roofs). Environmental media beneath and surrounding the facilities were not within the scope of this RLCR and will be addressed at a future date using the Soil Disturbance Permit process and in compliance with RFCA The RLC for trailers T130A, T130B, T130I and T130J will be performed and reported in a separate RLCR in the future

The RLC encompassed both radiological and chemical characterization to enable compliant disposition and waste management pursuant to the D&D Characterization Protocol (MAN-077-DDCP). The characterization built upon physical, chemical and radiological hazards identified in the facility-specific Historical Site Assessment Report.

Results indicate that no radiological contamination exists in excess of the PDSP unrestricted release limits of DOE Order 5400 5 All beryllium sample results were less than 0 1 $\mu g/100cm^2$ Bulk samples of building materials suspected of containing asbestos were "None Detected" All demolition debris will be managed in compliance with regulations governing PCBs (40 CFR 761), and Environmental Compliance Guidance #27, *Lead-Based Paint (LBP) and Lead-Based Paint Debris Disposal,* as applicable

Based upon data presented in this RLCR, the Area 5, Group 6a facilities are considered Type 1 facilities To ensure the facilities remain free of contamination and RLC data remain valid, Level 2 Isolation Controls have been established and the facility posted accordingly The sealed radioactive instrument sources stored in the T130E Emergency Response cabinet(s), as well as the cabinet(s), will be removed prior to the demolition or sale of T130E

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1 INTRODUCTION

A Reconnaissance Level Characterization (RLC) was performed to enable compliant disposition and waste management of the Area 5, Group 6a facilities (i e , Trailers T130C, T130D, T130E, T130F, T130G and T130H) Because these facilities were anticipated Type 1 facilities, a PDS characterization was performed. All facility surfaces were characterized in this RLC, including the interior and exterior surfaces of the facility (i e , floor, walls, ceilings and roofs) Environmental media beneath and surrounding the facilities were not within the scope of this RLCR and will be addressed at a future date using the Soil Disturbance Permit process and in compliance with RFCA

As part of the Rocky Flats Environmental Technology Site (RFETS) Closure Project, numerous facilities will be removed, among these are the Area 5, Group 6a facilities The location of these facilities is shown in Attachment A, *Facility Location Map* In the near future these facilities will no longer support the RFETS mission and will require removal to reduce Site infrastructure, risks and/or operating costs

Before these facilities can be removed, a Reconnaissance Level Characterization (RLC) must be conducted, this document presents the RLC results The RLC was conducted pursuant to the Decontamination and Decommissioning Characterization Protocol (MAN-077-DDCP) and the Pre-Demolition Survey Plan for D&D Facilities (MAN-127-PDSP) The RLC built upon physical, chemical and radiological hazards identified in the facility-specific Historical Site Assessment Report

1.1 Purpose

The purpose of this report is to communicate and document the results of the RLC effort. An RLC is performed before Type 1 building demolition to define the pre-demolition radiological and chemical conditions of a facility Pre-demolition conditions are compared with the unrestricted release limits for radiological and non-radiological contaminants RLC results will enable project personnel to make final disposition decisions, develop related worker health and safety controls, and estimate waste volumes by waste types

1.2 Scope

This report presents the pre-demolition radiological and chemical conditions of the Area 5, Group 6a facilities Environmental media beneath and surrounding the facility is not within the scope of this RLCR and will be addressed using the Soil Disturbance Permit process and in compliance with RFCA The RLC for trailers T130A, T130B, T130I and T130J will be performed and reported in a separate RLCR in the future

1.3 Data Quality Objectives

The Data Quality Objectives (DQOs) used in designing this RLC were the same DQOs identified in the Pre-Demolition survey Plan for D&D Facilities (MAN-127-PDSP) Refer to section 2 0 of MAN-127-PDSP for these DQOs

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2 HISTORICAL SITE ASSESSMENT

A facility-specific Historical Site Assessment (HSA) was conducted to understand the facility histories and related hazards The assessment consisted of facility walk-downs, interviews, and document review, including review of the Historical Release Report. These assessments were used to identify data gaps and needs, and to develop radiological and chemical characterization plans The facility-specific HSAs were documented in a *Historical Site Assessment Report (HSAR) for the Area 5, Group 6 facilities*, dated September 2002, Revision 0. Refer to Attachment B, *Historical Site Assessment Report,* for a copy of the facility-specific HSAR In summary, the HSAR did not identify a potential for radiological and chemical hazards in the Area 5, Group 6 facilities, except for some sealed radioactive instrument check sources in T130E

3 RADIOLOGICAL CHARACTERIZATION AND HAZARDS

The Area 5, Group 6a facilities were characterized for radiological hazards per the PDSP Radiological characterization was performed to define the nature and extent of radioactive materials that may be present on the facility surfaces Measurements were performed to evaluate the contaminants of concern Based upon a review of historical and process knowledge, building walk-downs, and MARSSIM guidance, a Radiological Characterization Plan was developed during the planning phase that describes the minimum survey requirements (refer to the RISS Characterization Project files)

Six radiological survey packages were developed for the interiors of the Area 5, Group 6a facilities: T130C-A-003, T130D-A-004, T130E-A-005, T130F-A-006, T130G-A-007 and T130H-A-008 The exterior of the Area 5, Group 6a facilities was performed as part of radiological survey package EXT-B-001, *RISS West Side Exteriors* The survey packages were developed in accordance with Radiological Safety Practices (RSP) 16 01, *Radiological Survey/Sampling Package Design, Preparation, Control, Implementation and Closure*. Total surface activity (TSA), removable surface activity (RSA), and scan measurements were collected in accordance with RSP 16 02 *Radiological Surveys of Surfaces and Structures* Radiological survey data were verified, validated and evaluated in accordance with RSP 16.04, *Radiological Survey/Sample Data Analysis*. Quality control measures were implemented relative to the survey process in accordance with RSP 16.05, *Radiological Survey/Sample Quality Control*.

Four hundred two (402) TSA measurements (132 random, 60 biased, 180 equipment and 30 QC) and three hundred and seventy two (372) RSA measurements (132 random, 60 biased, and 180 equipment) were performed, and a minimum of 5% of the interior facility surfaces were scanned of each facility The RLC data confirmed that these facilities do not contain radiological contamination above the surface contamination guidelines provided in the PDSP Radiological survey data, statistical analysis results, and survey locations are presented in Attachment C, *Radiological Data Summary and Survey Maps* The radiological survey unit packages are maintained in the RISS Characterization Project files Level 2 Isolation Control postings are displayed on the buildings to ensure no radioactive materials are inadvertently introduced The sealed radioactive instrument sources stored in the T130E Emergency Response cabinet(s), as well as the cabinet(s), will be removed prior to the demolition or sale of T130E

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The exterior radiological surveys for the Area 5, Group 6a facilities were performed as part of the RISS West Side Exterior PDS strategy effort (authorized by Department of Energy letter, *02-DOE-01598*, dated December 13th, 2002 and approved by CDPHE letter, *RE Proposed Deviations From The Pre-Demolition Survey Plan (PDSP)*, dated January 27, 2003, refer to the RISS Characterization Project Files for letter copies). The RISS West Side exterior building radiological surveys and locations can be found in survey unit package EXT-B-001, *RISS West Side Building Exteriors* Thirteen (13) biased TSA measurements, thirteen (13) biased RSA measurements, and a one (1) square meter scan at each of the thirteen (13) TSA/RSA locations were performed at biased locations on the exterior surfaces of the Area 5, Group 6a facilities. In addition, ten (10) percent scan surveys were performed at biased locations on the exterior entrance and dock surfaces of the Area 5, Group 6a facilities. The RLC data collected in exterior survey unit package EXT-B-001 confirmed that the exterior surfaces of these facilities do not contain radiological contamination above the surface contamination guidelines provided in the PDSP. Radiological survey data, statistical analysis results, and survey map locations for the West-Side Exterior survey unit package EXT-B-001 are maintained in the RISS Characterization Project files

4 CHEMICAL CHARACTERIZATION AND HAZARDS

The Area 5, Group 6a facilities were characterized for chemical hazards per the PDSP. Chemical characterization was performed to determine the nature and extent of chemical contamination that may be present on or in the facilities Based upon a review of historical and process knowledge, visual inspections, and PDSP DQOs, additional sampling needs were determined A Chemical Characterization Plan (refer to RISS Characterization Project files) was developed during the planning phase that describes sampling requirements, the justification for the sample locations and estimated sample numbers. Contaminants of concern included asbestos, beryllium, RCRA/CERCLA constituents, lead and PCBs Refer to Attachment D, *Chemical Data Summaries and Sample Maps*, for details on sample results and sample locations

4.1 Asbestos

The T130 Trailers are identical 15,400 square-foot trailers acquired in 1991 (refer to Attachment B, Historical Site Assessment Report). Building materials sampled for asbestos in one trailer, therefore, would be representative of the asbestos content for the same materials in the other trailers On this basis, the bulk samples taken in T130D and T130E (only) are representative of the same materials in T130C, T130F, T130G & T130H A survey of building materials suspected of containing asbestos was conducted in the aforementioned trailers in accordance with the PDSP. A CDPHE-certified asbestos inspector conducted the inspection and sampling in accordance with the *Asbestos Characterization Protocol, PRO-563-ACPR, Revision 1* Building materials suspected of containing asbestos were identified for sampling at the discretion of the inspector

A comprehensive, invasive asbestos inspection was conducted to determine the presence of friable and non-friable asbestos containing building materials All bulk samples of building materials suspected of containing asbestos were negative ("None Detected")

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Asbestos laboratory analysis data and sample location maps are contained in Attachment D, *Chemical Data Summaries and Sample Maps*

4.2 Beryllium (Be)

Based on the HSAR and personnel interviews, the Area 5, Group 6a facilities were anticipated Type 1 facilities There was not, however, adequate historical and process knowledge to conclude that beryllium was not used or stored in these buildings Therefore, biased beryllium sampling was performed in accordance with the PDSP and the *Beryllium Characterization Procedure, PRO-536-BCPR, Revision 0, September 9, 1999* Biased sample locations corresponded with the most probable areas of dust accumulation (including beryllium dust), assuming airborne deposition

All beryllium smear sample results were less than 0.1 $\mu g/100cm^2$ and meet the unrestricted release limits Beryllium laboratory sample data and location maps are contained in Attachment D, *Chemical Data Summaries and Sample Maps*

4.3 RCRA/CERCLA Constituents [including metals and volatile organic compounds (VOCs)]

Based on a review of the HSAR and facility walk-downs, these trailers are primarily used as office space However, a photo operation is housed in T130G, and T130H is used to store paints and Nickel Cadmium batteries There is no evidence that contamination by RCRA/CERCLA constituents has occurred from any of these uses. Therefore, RCRA/CERCLA constituent sampling was not performed in these facilities as part of the RLC process

Sampling for lead in paint in the Area 5, Group 6a facilities was not performed based on the age of these buildings (constructed after 1980). Environmental Waste Compliance Guidance #27, *Lead-based Paint (LBP) and Lead-based paint Debris Disposal*, states that LBP debris generated outside of currently identified high contamination areas shall be managed as non-hazardous (solid) wastes, and additional analysis for characteristics of hazardous waste derived from LBP is not a requirement for disposal

The Area 5, Group 6a facilities may contain RCRA regulated materials such as fluorescent lights and circuit boards A thorough inspection of each facility will be made, and all regulated materials will be removed prior to demolition.

4.4 Polychlorinated Biphenyls (PCBs)

Based on the HSARs, interviews and facility walk-downs of the Area 5, Group 6a facilities, PCB-containing equipment was never present in the buildings. Therefore, PCB sampling was not performed in these facilities as part of the RLC process

Based on the age of Area 5, Group 6a facilities (constructed after 1980), paints used do not contain PCBs Because these facilities may contain fluorescent light ballasts containing PCBs, fluorescent light fixtures will be inspected to identify PCB ballasts during removal operations. PCB ballasts will be identified based on factors such as labeling (e.g , PCB-containing and non PCB-containing), manufacturer, and date of manufacturing Ballasts that do not indicate non PCB-containing are assumed to be PCB-containing Ballasts that are identified as PCB containing and are leaking will be removed prior to demolition Non leaking PCB ballasts can remain in the building and be disposed of as PCB Bulk Product Waste

5 PHYSICAL HAZARDS

Physical hazards associated with the Area 5, Group 6a facilities consist of those common to standard industrial environments and include hazards associated with energized systems, utilities, and trips and falls The facilities have been relatively well maintained and are in good physical condition, therefore, do not present hazards associated with building deterioration Physical hazards are controlled by the Site Occupational Safety and Industrial Hygiene Program, which is based on OSHA regulations, DOE orders, and standard industry practices

6 DATA QUALITY ASSESSMENT

Data used in making management decisions for decommissioning of the Area 5, Group 6a facilities, and consequent waste management, are of adequate quality to support the decisions documented in this report The data presented in this report (Attachments C and D) were verified and validated relative to DOE quality requirements, applicable EPA guidance, and original DQOs of the project

In summary, the Verification and Validation (V&V) process corroborates that the following elements of the characterization process are adequate

- the *number* of samples and surveys,
- the *types* of samples and surveys;
- the sampling/survey process as implemented "in the field", and,
- the laboratory analytical process, relative to accuracy and precision considerations.

Details of the DQA are provided in Attachment E

7 DECOMMISSIONING WASTE TYPES AND VOLUME ESTIMATES

The demolition and disposal of the Area 5, Group 6a facilities will generate a variety of wastes Estimated waste types and waste volumes are presented below All waste can be disposed of as sanitary waste, except PCB Bulk Product Waste There is no radioactive or hazardous waste PCB ballasts will be managed pursuant to Site PCB abatement and waste management procedures

Waste Volume Estimates and Material Types							
Facility	Concrete (cu ft)	Wood (cu ft)	Metal (cu ft)	Corrugated Sheet Metal (cu ft)	Wall Board (cu ft)	ACM (cu ft)	Other Waste
T130C	0	3500	1500	3000	4500	0	None
T130D	0	3500	1500	3000	4500	0	None
T130E	0	3500	1500	3000	4500	0	None
T130F	0	3500	1500	3000	4500	0	None
T130G	0	3500	1500	3000	4500	0	None
T130H	0	3500	1500	3000	4500	0	None

8 FACILITY CLASSIFICATION AND CONCLUSIONS

Based on the analysis of radiological, chemical and physical hazards, the Area 5, Group 6a facilities (i.e., Trailers T130C, T130D, T130E, T130F, T130G and T130H) are classified as RFCA Type 1 facilities pursuant to the RFETS Decommissioning Program Plan (DPP, K-H, 1999) and are acceptable for demolition or sale The Type 1 classification is based on a review of historical and process knowledge, and newly acquired RLC data

The RLC of the Area 5, Group 6a facilities was performed in accordance with the DDCP and PDSP requirements. All PDSP DQOs were met, and all data satisfied the PDSP DQA criteria. The Area 5, Group 6a facilities do not contain radiological or hazardous waste. Any PCB ballast materials will be managed and disposed of in compliance with Environmental Protection Agency (EPA) and Colorado Department of Public Health and Environment (CDPHE) regulations All demolition debris will be managed in compliance with regulations governing PCBs (40 CFR 761), and Environmental Compliance Guidance #27, *Lead-Based Paint (LBP) and Lead-Based Paint Debris Disposal,* as applicable Environmental media beneath and surrounding the facility will be addressed at a future date using the Soil Disturbance Permit process and in compliance with RFCA

To ensure the Area 5, Group 6a facilities remain free of contamination and RLC data remain valid, Level 2 Isolation Controls have been established with the required postings to prevent the inadvertent introduction of contaminants The sealed radioactive instrument sources stored in the T130E Emergency Response cabinet(s), as well as the cabinet(s), will be removed prior to the demolition or sale of T130E

9 REFERENCES

DOE/RFFO, CDPHE, EPA, 1996 *Rocky Flats Cleanup Agreement (RFCA)*, July 19, 1996

DOE Order 5400 5, *"Radiation Protection of the Public and the Environment "*

EPA, 1994. *"The Data Quality Objective Process,"* EPA QA/G-4

K-H, 1999 *Decommissioning Program Plan*, June 21, 1999

MAN-131-QAPM, *Kaiser-Hill Team Quality Assurance Program*, Rev 1, November 1, 2001

MAN-076-FDPM, *Facility Disposition Program Manual*, Rev 3, January 1, 2002

MAN-077-DDCP, *Decontamination and Decommissioning Characterization Protocol*, Rev. 3, July 15, 2002.

MAN-127-PDSP, *Pre-Demolition Survey Plan for D&D Facilities*, Rev. 1, July 15, 2002

MARSSIM - *Multi-Agency Radiation Survey and Site Investigation Manual*, December 1997 (NUREG-1575, EPA 402-R-97-016)

PRO-475-RSP-16 01, *Radiological Survey/Sampling Package Design, Preparation, Control, Implementation, and Closure*, Rev 1, May 22, 2001.

PRO-476-RSP-16 02, *Pre-Demolition (Final Status) Radiological Surveys of Surfaces and Structures*, Rev 1, May 22, 2001

PRO-477-RSP-16.03, *Radiological Samples of Building Media*, Rev 1, May 22, 2001

PRO-478-RSP-16.04, *Radiological Survey/Sample Data Analysis for Final Status Survey*, Rev 1, May 22, 2001

PRO-479-RSP-16.05, *Radiological Survey/Sample Quality Control for Final Status Survey*, Rev. 1, May 22, 2001

PRO-563-ACPR, *Asbestos Characterization Procedure*, Revision 0, August 24, 1999

PRO-536-BCPR, *Beryllium Characterization Procedure*, Revision 0, August 24, 1999

RFETS, *Environmental Waste Compliance Guidance #25, Management of Polychlorinated Biphenyls (PCBs) in Paint and Other Bulk Product Waste During Facility Disposition.*

RFETS, *Environmental Waste Compliance Guidance #27, Lead-Based Paint (LBP) and Lead-Based Paint Debris Disposal*

RFCA Standard Operation Protocol for Recycling Concrete, September 28, 1999

Historical Site Assessment Report for the Area 5 Group 6 Facilities, dated September 2002, Revision 0

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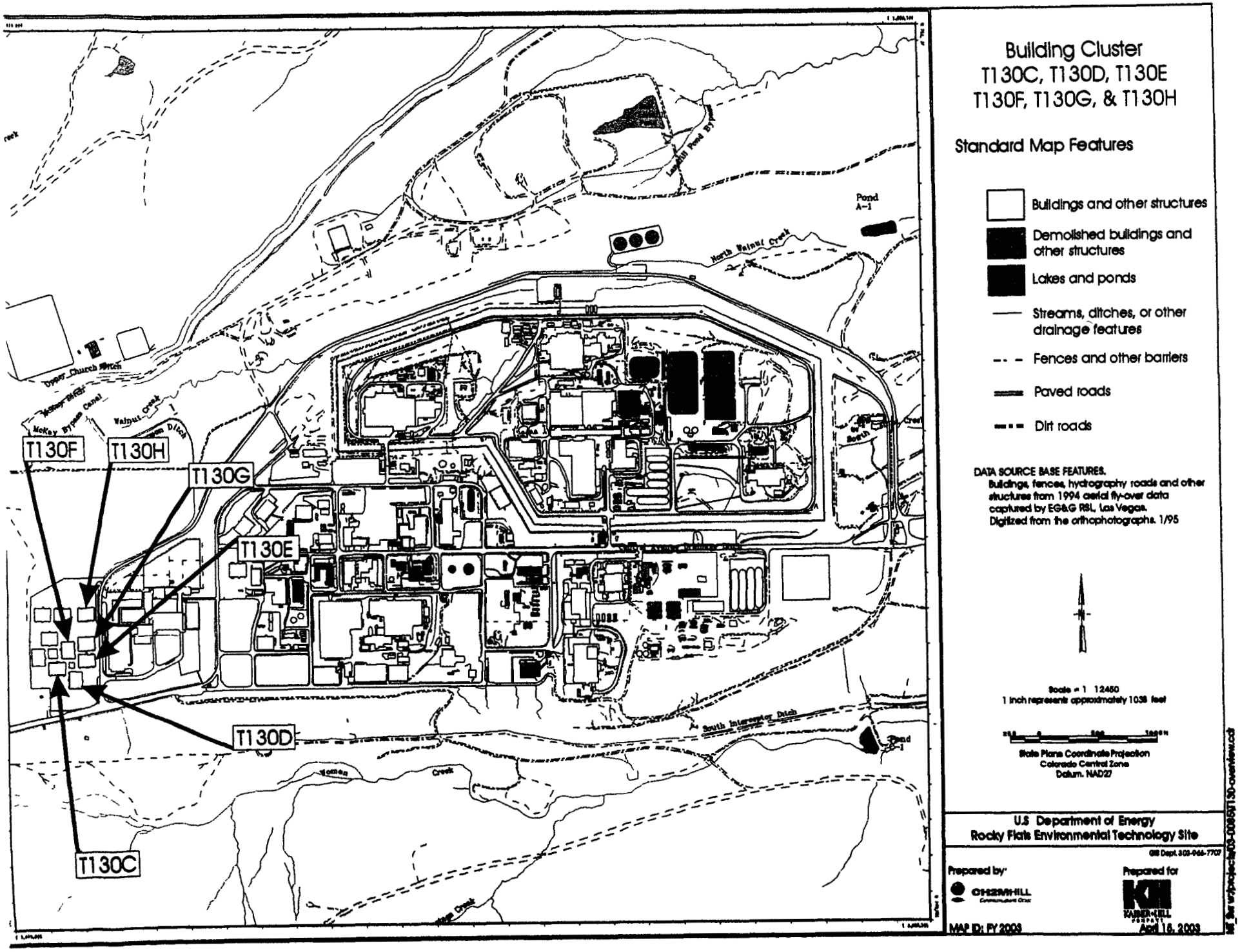
ATTACHMENT A

Facility Location Map


T130F
T130H
T130G
T130E
T130D
T130C
Pond A-1
North Walnut Creek
Walnut Creek
South Interceptor Ditch
Pond B-1
Woman Creek
Building Cluster
T130C, T130D, T130E
T130F, T130G, & T130H
Standard Map Features
Buildings and other structures
Demolished buildings and other structures
Lakes and ponds
Streams, ditches, or other drainage features
Fences and other barriers
Paved roads
Dirt roads
DATA SOURCE BASE FEATURES.
Buildings, fences, hydrography roads and other structures from 1994 aerial fly-over data captured by EG&G RSL, Las Vegas.
Digitized from the orthophotographs. 1/95
Scale = 1 : 12450
1 inch represents approximately 1038 feet
State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD27
U.S Department of Energy
Rocky Flats Environmental Technology Site
GIS Dept. 303-966-7707
Prepared by:
OHM
Prepared for
KAISER-HILL
MAP ID: FY 2003
April 16, 2003

ATTACHMENT B

Historical Site Assessment Report

&D RISS Facility Characteriz: n
Historical Site Assessment Report
September, 2002 Rev. 0

Facility ID (AREA 5 GROUP 6) Trailers T130 A, B, C, D, E, F, G, H, I, and J.
Anticipated Facility Type (1, 2, or 3) Trailers T130 A, B, C, D, E, F, G, H, I, and J are anticipated Type 1 facilities

This facility-specific Historical Site Assessment (HSA) has been performed in accordance with *D&D Characterization Protocol*, RFETS MAN-077-DDCP, latest version, and *Facility Disposition Program Manual*, RFETS MAN-076-FDPM, latest version

Physical Description

Trailers T130 A, B, C, D, E, F, G, H, I and J

The T130 Trailers are identical trailers These trailers are each 15,400 square-foot general office trailers and were acquired in 1991 These modular trailers are each approximately 120-feet wide by 130-feet long Each trailer has corrugated metal siding with corrugated metal skirting The entrances have wooden stairs leading to a wooded enclosure

The interiors are primarily a cubical layout, but have several hard-walled offices, conference rooms, and rest rooms Interior walls are wallboard, the ceiling is a drop ceiling with acoustical tiles and recessed lights The floors are primarily covered with carpet except in the bathrooms and dock entranceways, which are covered with vinyl tile

The T130 Trailers each have the following utilities. electrical, plant water, plant sanitary, and fire protection is provided by an overhead sprinkler system and wall mounted fire extinguishers

Historical Operations

The T130 trailers we originally installed to support the RFETS Resumption activities in the early 1990s In the mid 1990s the trailer began housing other management and administrative support operations in support of the site closure goals Over the last few years, as field trailers from inside the Industrial Zone have been removed, more field activities have been moved into the T130 trailers. On occasion, some trailers have set up RMS to store test sealed sources or to store environmental samples that may contain very low levels of chemical or radiological activity

Trailers T130A, B, E, and I have recently set up RMAs for the storage of sealed test sources in support of field activities. The site photographic department has recently moved to T130 and established a Satellites Accumulation Area to handle it photo-developing waste There has been no evidence of building contamination associated with these activities The remaining Trailers addressed in the HSA (T130C, D, F, H, and J) have primarily been used for management or administrative uses

Currently T130A houses field sampling operation , the Canberra analytical organization, and the BioAssay receiving and shipping operations A RMA was established to support these activities in 2002 T130B houses Rad Safety and Rad Engineering and established a RMA in 2000 T130C houses general management and administrative activities such as Analytical Services, Waste Shipping support personnel, Ecology, and Regulatory Compliance T130D houses general management and administrative activities such as Rocky Flats Site Closure Services senior management, Legal, and Project Controls. T130E houses the SteelWorkers Union, Emergency Preparedness and the Radiological Assistance Team (RAP Team) An RMA was established in the early 1990s to house sealed sources and emergency response radiological equipment. T130F houses general management and administrative activities such as TRU Waste Programs and Materials Stewardship T130G houses general management and administrative activities, CERCLA Records, document control, and Analytical Serviced document management. In 2002, the Photography department was moved to T130G A Satellites Accumulation Area was established to handle the Photo-developing waste. T130H houses general management and administrative activities such as KH Construction T130I houses general management and administrative activities such as Telecommunications, Computer Support, and RISS Radiological Support personnel An RMA was established in 2002 to support RISS Radiological Support operations T130J houses general management and administrative activities such as Bartlett Janitorial Services, Roads and Grounds, RISS Industrial Hygiene, and RISS support personnel

Current Operational Status

The T130 A, B, C, D, E, F, G, H, I and J trailers are all currently operational

Contaminants of Concern

Asbestos

Describe any potential, likely, or known sources of Asbestos

None of the trailers addressed in this HSA have an asbestos posting. The Industrial Hygiene Group (IH) has collected some asbestos data on the T130 office trailers Contact IH for a copy of this information

Beryllium (Be)

Describe any potential, likely, or known Be production or storage locations

None of the Trailers addressed in this HSA are on the List of known Be Areas.

Summarize any recent Be sampling results

There have been no recent Be samples collected on any of these facilities

Lead

Describe any potential, likely, or known sources of Lead (e.g , paint, shielding, etc)

Based on the age of some of the trailers addressed in this HSA, lead in paint should not be a concern No processes containing lead were conducted in these trailers

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RCRA/CERCLA Constituents

Describe any potential, likely, or known sources of RCRA/CERCLA constituents (e g chemical storage, waste storage and processes)

In 2002, the Photography department was moved into T130G A Satellites Accumulation Area was established to handle it Photo-developing waste Canberra Mobile Services has a chemical cabinet to store acid and base ampules used to preserve some water samples

See the Historical operations section above for a more detailed listing of the operations which occurred in the facilities addressed in this HSA

Describe any potential, likely, or known spill locations (and sources, if any)

None of the facilities in this HSA have had any RCRA/CERCLA spills

Describe methods in which spills were mitigated, if any

None of the facilities in this HSA have had any RCRA/CERCLA spills

PCBs

Describe any potential, likely, or known sources of PCBs (e.g., light ballasts, paints, equipment, etc)

No PCB containing process where housed in any of the Trailers addressed in this HSA Based on the age of construction of some of these facilities, PCBs in paint should not be a concern

Describe any potential, likely, or known spill locations (and sources, if any)

No PCB spills occurred in any of the Trailers addressed in this HSA

Describe methods in which spills were mitigated, if any

No PCB spills occurred in any of the Trailers addressed in this HSA

Radiological Contaminants

Describe any potential, likely or known radiological production or storage locations

None of the Trailers in this HSA are radiological posted However, several of the Trailers addressed in this HSA have RMAs established in them In addition, Trailer T130A houses the field sampling operations and also houses Canberra Gamma Spectroscopy operations There is no evidence of building contamination associated with these activities See the Historical operations section above for a more detailed listing of the operations which occurred in the facilities addressed in this HSA

Describe any potential, likely, or known spill locations (e.g , known leaking sealed radioactive sources, leaking waste drums, potentially contaminated drains, etc)

Except as noted in the historical operations section above radiological material has no routinely stored or handled in any of the facilities addressed in this HSA

Describe methods in which spills were mitigated, f any

None of the facilities in this HSA have had a radiological spill

Describe any potential, likely, or known isotopes of concern (e.g , weapons grade plutonium, uranium isotopes, pure beta emitters, mixed fission products, etc.)

Isotopes of concern include uranium and plutonium

Describe any potential, likely, or known external facility contamination (e.g , stack release points, unfiltered ventilation, facility's physical location to known site releases, etc)

See section below for information on IHSSs PACs, and UBCs

Environmental Restoration Concerns

Describe any ER concerns that could affect facility characterization (e.g , IHSSs, PACs, UBCs)

None of the Trailers addressed in this HSA are associated with any IHSSs, PACs, or UBCs

Additional Information

Describe any additional information that may be useful during facility characterization (e.g , contaminant migration routes, waste handling operations, physical hazards, Historical Release Reports, WSRIC data, etc)

None

References

Provide all sources of information utilized to gather data for facility history (e.g , documents, files, interviews)

Sources reviewed to complete this HSA were the RFETS Facility List, the Historical Release Report, Site Master List of RCRA Units, and the Site IHSS, PAC, and UBC databases The WSRIC for those buildings with a WSRIC In addition, a facility walkdown and interviews were performed

Waste Volume Estimates and Material Types

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Facility	Concrete (cu ft)	Wood (cu ft)	Metal (cu ft)	Corrugated Sheet Metal (cu ft)	Wall Board (cu ft)	ACM (cu ft)	Other Waste (cu ft)
Trailer T130A	0	3500	1500	3000	4500	TBD	N/A
Trailer T130B	0	3500	1500	3000	4500	TBD	N/A
Trailer T130C	0	3500	1500	3000	4500	TBD	N/A
Trailer T130D	0	3500	1500	3000	4500	TBD	N/A
Trailer T130E	0	3500	1500	3000	4500	TBD	N/A
Trailer T130F	0	3500	1500	3000	4500	TBD	N/A
Trailer T130G	0	3500	1500	3000	4500	TBD	N/A
Trailer T130H	0	3500	1500	3000	4500	TBD	N/A
Trailer T130I	0	3500	1500	3000	4500	TBD	N/A
Trailer T130J	0	3500	1500	3000	4500	TBD	N/A

Further Actions

Recommend any further actions, if any (e.g., characterization, decontamination, special handling, etc.)

Begin the RLC/PDS process

Note:

This HSA was performed prior to SME walkdowns, and chemical and radiological characterization package preparations SMEs should evaluate and/or verify all information during the RLC/PDS process. SMEs may need to review additional documentation and perform additional interviews Information contained in this HSA only represents a "snapshot" in time Subsequent data may be obtained during SME walkdowns and chemical and radiological characterization package preparations, which may conflict with this report. However, this report will not be amended, and the newer data will take precedence over the data in this report Newer Data will appear in the RLCR/PDSR.

Prepared By: Doug Bryant / Doug Bryant / September 2002

Name Signature Date

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ATTACHMENT C

Radiological Data Summaries and Survey Maps

SURVEY UNIT T130C-A-003
RADIOLOGICAL DATA SUMMARY - PDS

Survey Unit Description: T130C Interior

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T130C-A-003
PDS Data Summary

Total Surface Activity Measurements

	62 Number Required	62 Number Obtained	
MIN	-17 8		dpm/100 cm^2
MAX	56 9		dpm/100 cm^2
MEAN	2 8		dpm/100 cm^2
STD DEV	12 0		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	62 Number Required	62 Number Obtained	
MIN	-0 6		dpm/100 cm^2
MAX	2 7		dpm/100 cm^2
MEAN	0 1		dpm/100 cm^2
STD DEV	0 8		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

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SURVEY UNIT T130C-A-003
TSA - DATA SUMMARY

Manufacturer	NE Tech	NE Tech	NE Tech	NE Tech
Model	DP-6	DP-6	DP-6	DP-6
Instrument ID#	1	2	3	4
Serial #	3125	3107	1589	1589
Cal Due Date	4/21/03	8/6/03	7/8/03	7/8/03
Analysis Date	2/21/03	2/21/03	2/21/03	2/21/03
Alpha Eff. (c/d)	0.211	0.223	0.214	0.214
Alpha Bkgd (cpm)	2.0	1.3	4.0	4.0
Sample Time (min)	1.5	1.5	1.5	1.5
LAB Time (min)	1.5	1.5	1.5	1.5
MDC (dpm/100cm^2)	48.0	48.0	48.0	48.0

Manufacturer	NE Tech	NE Tech	NE Tech	NE Tech
Model:	DP-6	DP-6	DP-6	DP-6
Instrument ID#	6	9	10	11
Serial #	3104	3104	1256	1261
Cal Due Date:	5/11/03	5/11/03	6/30/03	6/19/03
Analysis Date:	2/21/03	2/24/03	2/24/03	2/24/03
Alpha Eff (c/d)	0.222	0.222	0.234	0.207
Alpha Bkgd (cpm)	2.7	1.3	1.3	1.3
Sample Time (min)	1.5	1.5	1.5	1.5
LAB Time (min)	1.5	1.5	1.5	1.5
MDC (dpm/100cm^2)	48.0	48.0	48.0	48.0

Sample Location Number	Instrument ID#	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1]
1	11	4.3	20.8	5.3	25.6	3.0
2	1	5.3	25.1	5.3	25.1	7.3
3	1	2.7	12.8	4.0	19.0	5.0
4	3	4.7	22.0	7.3	34.1	4.1
5	4	4.7	22.0	5.3	24.8	4.1
6	2	4.6	20.6	2.7	12.1	2.8
7	1	2.0	9.5	4.0	19.0	-8.3
8	10	2.7	11.5	4.7	20.1	-6.3
9	9	3.3	14.9	4.3	19.4	3.0
10	3	3.3	15.4	4.0	18.7	2.4
11	9	4.0	18.0	2.7	12.2	0.2
12	2	0.0	0.0	0.0	0.0	-17.8
13	1	4.0	19.0	4.7	22.3	1.1
14	1	1.3	6.2	5.3	25.1	11.7
15	1	3.3	15.6	0.7	3.3	2.2
16	1	3.3	15.6	6.0	28.4	2.2
17	2	5.3	23.8	4.7	21.1	5.9
18	10	5.3	22.6	4.0	17.1	4.8
19	1	1.3	6.2	3.3	15.6	11.7
20	1	0.0	0.0	2.0	9.5	17.8
21	1	1.3	6.2	1.3	6.2	11.7
22	3	7.3	34.1	5.3	24.8	16.3
23	6	4.7	21.2	4.7	21.2	3.4
24	4	5.3	24.8	2.0	9.3	6.9
25	6	6.7	30.2	2.7	12.2	12.4
26	6	2.0	9.0	2.0	9.0	-8.8
27	4	8.7	40.7	2.7	12.6	22.8
28	6	0.7	3.2	2.7	12.2	14.7
29	4	2.7	12.6	0.7	3.3	5.2
30	4	3.3	15.4	5.3	24.8	2.4

SURVEY UNIT T130C-A-003
TSA - DATA SUMMARY

Sample Location Number	Instrument ID#	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activty (dpm/100cm2)	Sample Net Activty (dpm/100cm2)[1]
31	6	1.3	5.9	2.0	9.0	12.0
32	6	4.0	18.0	3.3	14.9	0.2
33	4	16.0	74.8	4.7	22.0	56.9
34	4	6.7	31.3	4.0	18.7	13.5
35	4	7.3	34.1	5.3	24.8	16.3
36	6	6.0	27.0	6.0	27.0	9.2
37	6	2.0	9.0	1.3	5.9	-8.8
38	4	6.0	28.0	7.3	34.1	10.2
39	6	5.3	23.9	3.3	14.9	6.1
40	4	8.0	37.4	4.7	22.0	19.6
41	6	6.7	30.2	4.7	21.2	12.4
42	4	3.3	15.4	5.3	24.8	2.4
43	4	6.7	31.3	7.3	34.1	13.5
44	6	4.7	21.2	6.7	30.2	3.4
45	6	5.3	23.9	3.3	14.9	6.1
46	4	4.7	22.0	3.3	15.4	4.1
47	6	2.1	9.5	1.2	5.4	-8.4
48	4	7.3	34.1	3.3	15.4	16.3
49	10	6.0	25.6	2.7	11.5	7.8
50	10	2.0	8.5	2.0	8.5	9.3
51	10	6.0	25.6	2.7	11.5	7.8
52	10	2.7	11.5	2.7	11.5	-6.3
53	9	6.0	27.0	3.3	14.9	9.2
54	9	4.7	21.2	6.7	30.2	3.4
55	11	3.3	15.9	2.7	13.0	1.9
56	9	4.0	18.0	2.7	12.2	0.2
57	10	4.0	17.1	2.7	11.5	-0.7
58	9	6.0	27.0	4.7	21.2	9.2
59	11	3.3	15.9	5.3	25.6	-1.9
60	9	8.0	36.0	6.0	27.0	18.2
61	9	8.7	39.2	4.0	18.0	21.4
62	10	2.7	11.5	6.0	25.6	-6.3
					17.8	Sample LAB Average
					MIN	-17.8
					MAX	56.9
					MEAN	2.8
					SD	12.0
					Transuranic $DCGL_w$	100

1 Average LAB used to subtract from Gross Sample Activity

QC Measurements

6QC	10	1.3	5.6	4.7	20.1	18.3
15QC	10	5.3	22.6	2.0	8.5	1.2
25QC	11	0.7	3.4	4.0	19.3	20.5
27QC	9	3.3	14.9	4.7	21.2	9.0
24QC	9	5.3	23.9	5.3	23.9	0.0
					23.9	QC LAB Average
					MIN	0.0
					MAX	0.0
					MEAN	9.8
					Transuranic $DCGL_w$	100

1 Average QC LAB used to subtract from Gross Sample Activity

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SURVEY UNIT T130C-A-003
RSC - DATA SUMMARY

Manufacturer	Eberline	Eberline	Eberline	Eberline
Model	SAC-4	SAC-4	SAC-4	SAC-4
Instrument ID#	7	8	13	14
Serial #	833	952	767	1164
Cal Due Date	2/28/03	7/9/03	5/13/03	6/17/03
Analysis Date.	2/21/03	2/21/03	2/24/03	2/24/03
Alpha Eff (c/d)	0 33	0 33	0 33	0 33
Alpha Bkgd (cpm)	0 1	0 0	0 2	0 2
Sample Time (min)	2	2	2	2
Bkgd Time (min)	10	10	10	10
MDC (dpm/100cm^2)	9 0	9 0	9 0	9 0

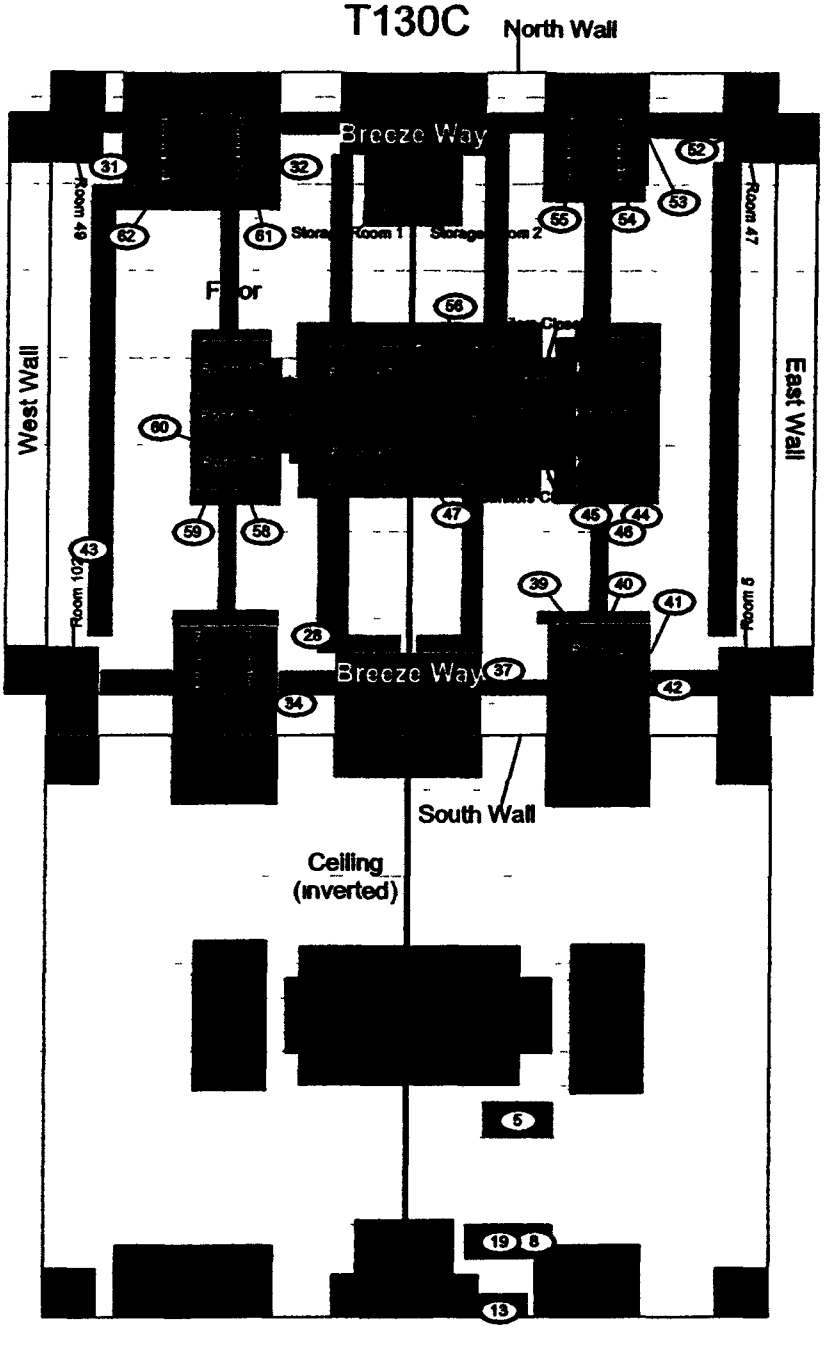
Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
1	7	1	1.2
2	8	0	0 0
3	7	1	1.2
4	8	0	0 0
5	7	2	2.7
6	8	0	0 0
7	7	0	-0 3
8	8	0	0 0
9	7	0	-0 3
10	8	0	0 0
11	7	0	-0 3
12	8	0	0 0
13	7	1	1 2
14	8	0	0 0
15	7	0	-0 3
16	8	0	0 0
17	7	0	-0 3
18	8	0	0 0
19	7	1	1.2
20	8	0	0 0
21	7	0	-0 3
22	8	0	0 0
23	7	0	-0 3
24	8	0	0 0
25	7	0	-0 3
26	8	0	0 0
27	7	0	-0 3
28	8	0	0 0
29	7	1	1 2
30	8	1	1 5
31	7	1	1 2
32	8	0	0 0
33	7	0	-0 3

SURVEY UNIT T130C-A-003
RSC - DATA SUMMARY

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
34	8	0	0 0
35	7	1	1 2
36	8	0	0 0
37	7	0	-0 3
38	8	0	0 0
39	7	0	-0 3
40	8	0	0 0
41	7	0	-0 3
42	8	0	0 0
43	7	1	1 2
44	8	0	0 0
45	7	0	-0 3
46	13	0	-0 6
47	14	0	-0 6
48	13	0	-0 6
49	14	0	-0 6
50	13	0	-0 6
51	14	0	-0 6
52	13	0	-0 6
53	14	0	-0 6
54	13	0	-0 6
55	14	1	0 9
56	13	0	0 6
57	14	0	-0 6
58	13	2	2.4
59	14	1	0 9
60	13	1	0 9
61	14	0	-0 6
62	13	0	-0 6
		MIN	-0 6
		MAX	2.7
		MEAN	0 1
		SD	0 8
		Transuranic $DCGL_W$	**20**

PRE-DEMOLITION SURVEY FOR T130C

Survey Area. 5 **Survey Unit: T130C-A-003** **Classification 3**
Building T130C
Survey Unit Description Interior of T130C
Total Area 4832 sq. m. **Total Floor Area 1413 sq m.**



Scan Area

SURVEY MAP LEGEND
- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 45
0 METERS 15

1 inch = 36 feet 1 grid sq. = 1 sq. m.

U S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL

MAP ID 03-0085\T130C Pg1-Scn March 6, 2003

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s)
4,5,6,9,10,11,12

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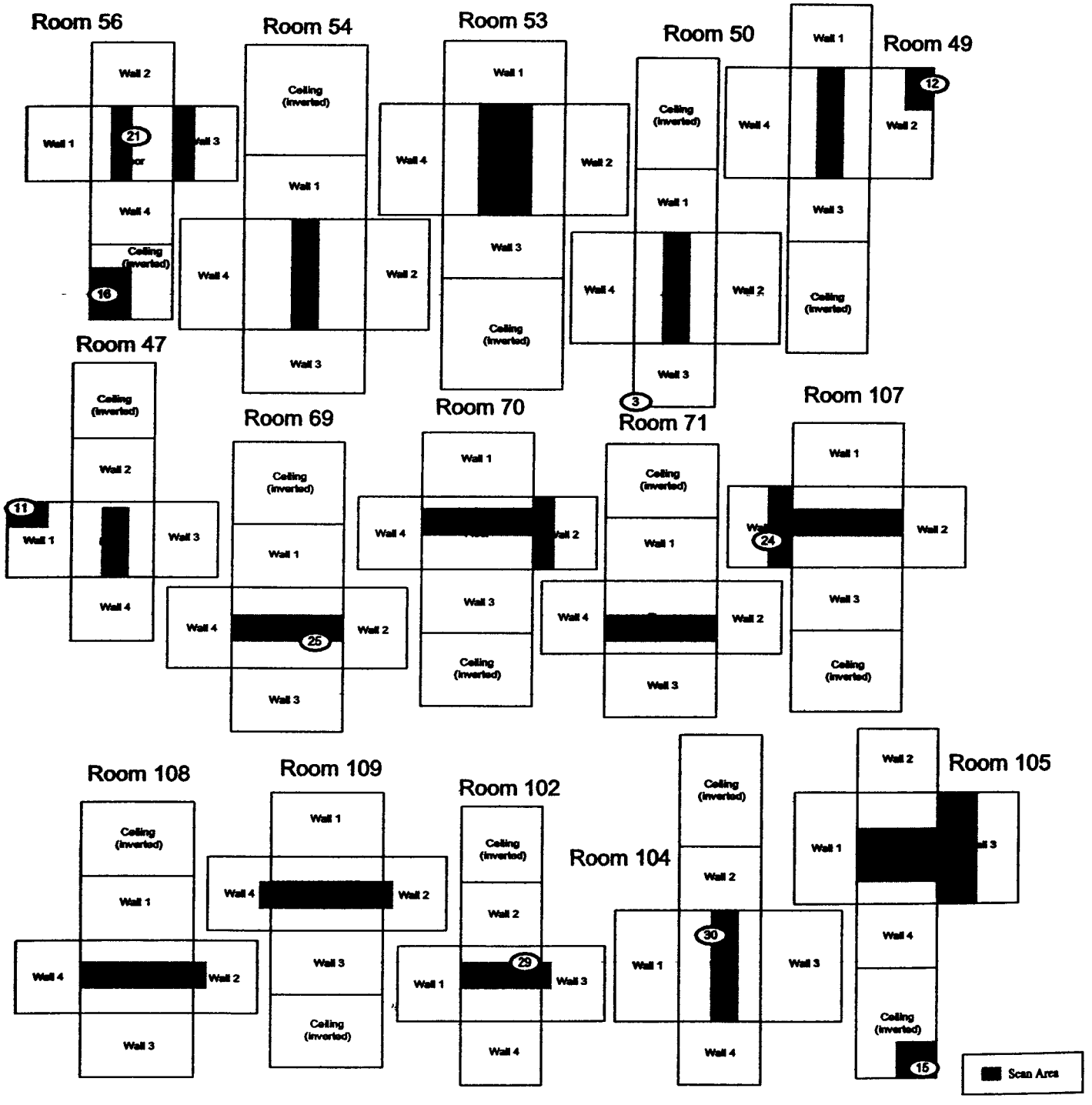
PRE-DEMOLITION SURVEY FOR T130C

Survey Area. 5 **Survey Unit: T130C-A-003** **Classification 3**
Building T130C
Survey Unit Description Interior of T130C
Total Area 4832 sq m **Total Floor Area· 1413 sq. m.**



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq m

U.S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by GIS Dept. 303-966-7707 Prepared for

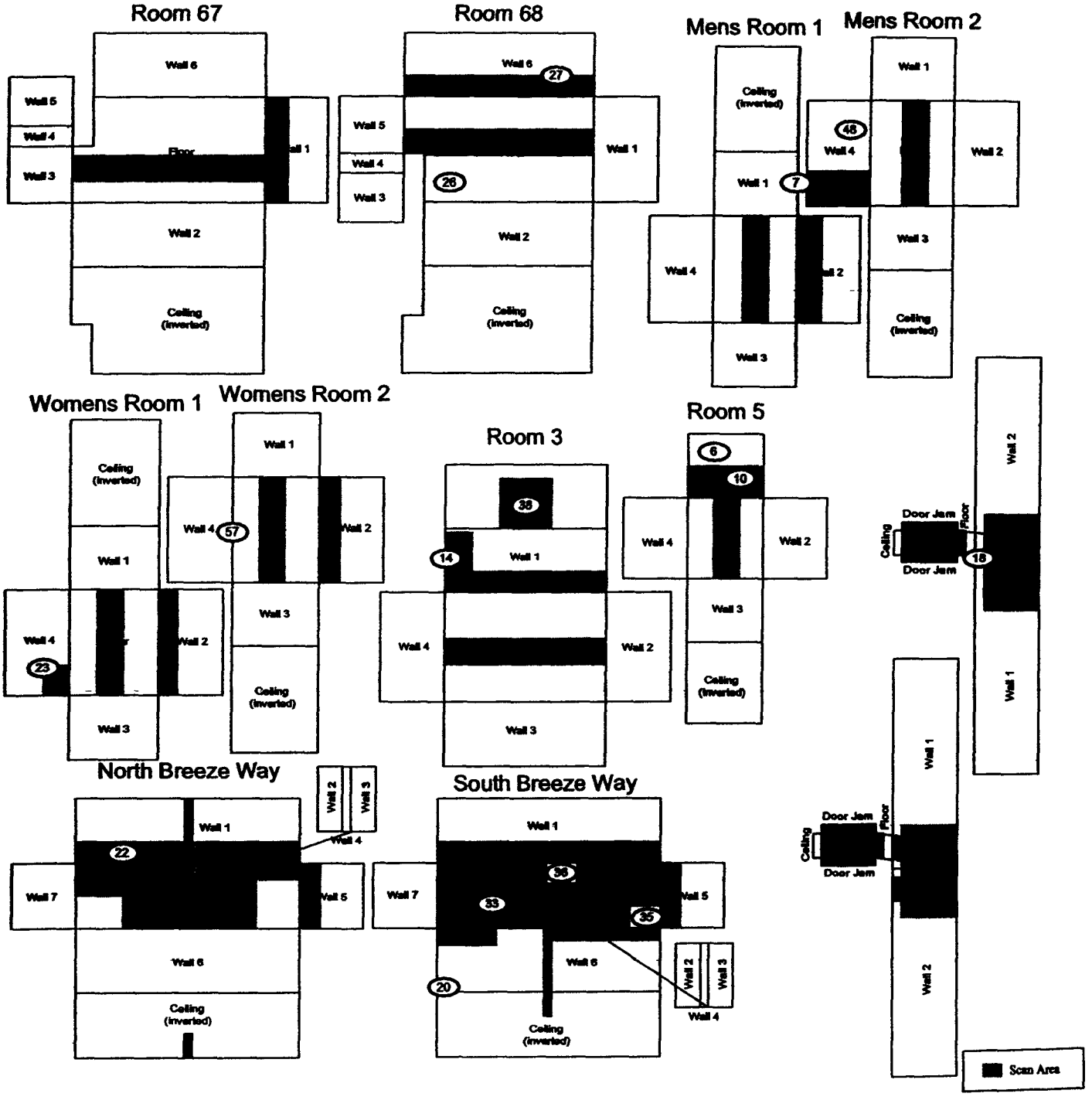
CH2MHILL

MAP ID 03-0085\T130C PG2-Scn March 6, 2003

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s)
4,5,6,9,10,11,12

PRE-DEMOLITION SURVEY FOR T130C

Survey Area. 5 **Survey Unit. T130C-A-003** **Classification 3**
Building T130C
Survey Unit Description Interior of T130
Total Area 4832 sq m **Total Floor Area 1413 sq. m.**



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area to Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq m

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s)
4,5,6,9,10,11,12

U S Department of Energy
Rocky Flats Environmental Technology Site

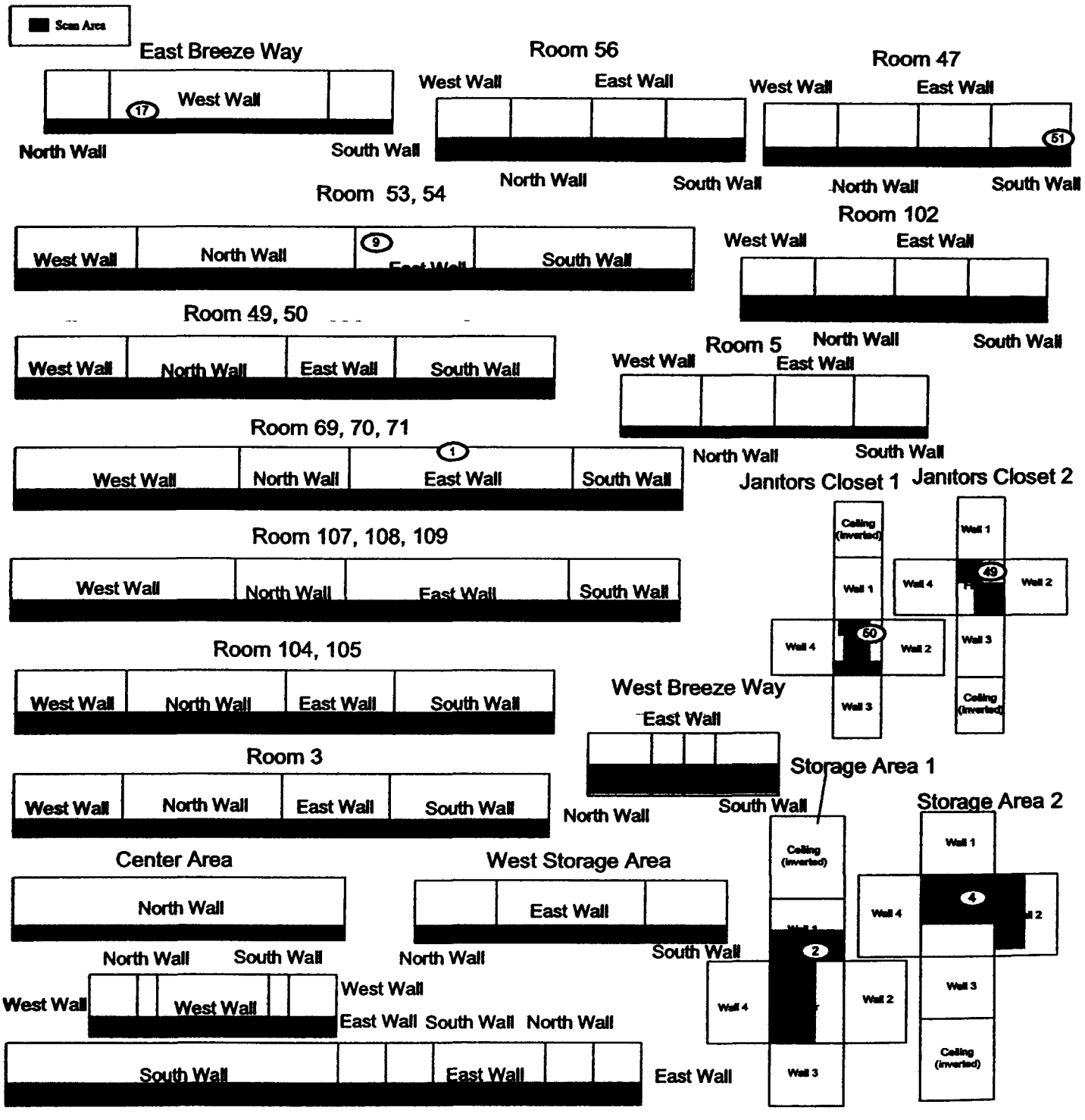
Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL
Construction Group

MAP ID 03-0085\T130C PG3-Scn March 6, 2003

PRE-DEMOLITION SURVEY FOR T130C

Survey Area. 5 **Survey Unit: T130C-A-003** **Classification 3**
Building. T130C
Survey Unit Description Interior of T130C
Total Area: 4832 sq. m. **Total Floor Area: 1413 sq m.**



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq m

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s)
4,5,6,9,10,11,12

U.S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept 303-966-7707 Prepared for:

CH2MHILL
Communications Group

MAP ID 03-0085\T130C PG4-Scn March 6, 2003

SURVEY UNIT T130D-A-004
RADIOLOGICAL DATA SUMMARY - PDS

Survey Unit Description: T130D Interior

T130D-A-004
PDS Data Summary

Total Surface Activity Measurements

	62 Number Required	62 Number Obtained	
MIN	-15 1		dpm/100 cm^2
MAX	59 8		dpm/100 cm^2
MEAN	6 6		dpm/100 cm^2
STD DEV	13 6		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	62 Number Required	62 Number Obtained	
MIN	-0 6		dpm/100 cm^2
MAX	6 1		dpm/100 cm^2
MEAN	0 4		dpm/100 cm^2
STD DEV	1 3		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

SURVEY UNIT T130D-A-004
TSA - DATA SUMMARY

Manufacturer	NF Tech	NF Tech	NE Tech	NE Tech
Model	DP-6	DP-6	DP-6	DP-6
Instrument ID#	1	2	3	4
Serial #	3107	1589	1366	1589
Cal Due Date	8/6/03	7/8/03	6/26/03	7/8/03
Analysis Date	2/24/03	2/24/03	2/24/03	2/24/03
Alpha Eff (cfd)	0.223	0.214	0.219	0.214
Alpha Bkgd (cpm)	1.3	2.0	2.0	2.0
Sample Time (min)	1.5	1.5	1.5	1.5
LAB Time (min)	1.5	1.5	1.5	1.5
MDC (dpm/100cm^2)	48.0	48.0	48.0	48.0

Manufacturer	NE Tech	NE Tech	NE Tech	NE Tech
Model	DP-6	DP-6	DP-6	DP-6
Instrument ID#	9	10	11	12
Serial #	1589	1366	1249	3104
Cal Due Date:	7/8/03	6/26/03	4/5/03	5/11/03
Analysis Date	2/25/03	2/25/03	2/25/03	2/25/03
Alpha Eff (cfd)	0.214	0.219	0.205	0.222
Alpha Bkgd (cpm)	3.3	4.7	0.0	0.7
Sample Time (min)	1.5	1.5	1.5	1.5
LAB Time (min)	1.5	1.5	1.5	1.5
MDC (dpm/100cm^2)	48.0	48.0	48.0	48.0

Sample Location Number	Instrument ID#	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1]
1	1	5.3	23.8	2.7	12.1	5.5
2	1	2.0	9.0	4.0	17.9	-9.3
3	1	5.3	23.8	3.3	14.8	5.5
4	1	4.0	17.9	4.7	21.1	-0.3
5	1	3.3	14.8	2.7	12.1	3.5
6	2	4.7	22.0	2.0	9.3	3.7
7	1	2.7	12.1	2.7	12.1	-6.1
8	1	0.7	3.1	1.3	5.8	15.1
9	1	2.0	9.0	1.3	5.8	-9.3
10	1	4.7	21.1	3.3	14.8	2.8
11	1	2.7	12.1	2.0	9.0	-6.1
12	1	4.0	17.9	6.7	30.0	-0.3
13	1	3.3	14.8	2.7	12.1	3.5
14	1	2.7	12.1	2.0	9.0	-6.1
15	1	5.3	23.8	2.0	9.0	5.5
16	1	3.3	14.8	2.0	9.0	-3.5
17	1	4.7	21.1	2.7	12.1	2.8
18	1	0.7	3.1	1.3	5.8	15.1
19	1	8.0	35.9	2.7	12.1	17.6
20	1	4.0	17.9	2.0	9.0	-0.3
21	2	6.0	28.0	2.7	12.6	9.8
22	1	2.0	9.0	4.7	21.1	9.3
23	1	8.7	39.0	3.3	14.8	20.8
24	1	5.3	23.8	3.3	14.8	5.5
25	1	4.7	21.1	2.0	9.0	2.8
26	1	6.7	30.0	6.0	26.9	11.8
27	1	3.3	14.8	4.4	19.7	3.5
28	1	8.0	35.9	5.3	23.8	17.6
29	1	5.3	23.8	6.7	30.0	5.5
30	1	4.0	17.9	7.3	32.7	-0.3

SURVEY UNIT T130D-A-004
TSA - DATA SUMMARY

Sample Location Number	Instrument ID#	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1]
31	1	2.7	12.1	6.7	30.0	-6.1
32	1	6.0	26.9	2.0	9.0	8.7
33	4	4.7	22.0	2.0	9.3	3.7
34	3	5.3	24.2	5.3	24.2	5.9
35	4	8.0	37.4	3.3	15.4	19.1
36	3	8.0	36.5	4.0	18.3	18.3
37	4	4.7	22.0	3.3	15.4	3.7
38	3	8.0	36.5	7.3	33.3	18.3
39	4	3.3	15.4	4.7	22.0	-2.8
40	3	6.0	27.4	4.0	18.3	9.1
41	4	2.0	9.3	5.3	24.8	-8.9
42	4	5.3	24.8	6.0	28.0	6.5
43	3	9.3	42.5	4.0	18.3	24.2
44	12	5.3	23.9	3.3	14.9	5.6
45	9	7.3	34.1	4.7	22.0	15.9
46	9	4.7	22.0	5.3	24.8	3.7
47	11	5.3	25.9	5.3	25.9	7.6
48	11	7.3	35.6	3.3	16.1	17.4
49	10	7.3	33.3	7.3	33.3	15.1
50	9	4.7	22.0	4.0	18.7	3.7
51	10	2.0	9.1	3.3	15.1	9.1
52	11	4.7	22.9	4.0	19.5	4.7
53	10	4.7	21.5	7.3	33.3	3.2
54	9	12.0	56.1	3.3	15.4	37.8
55	10	8.7	39.7	7.3	33.3	21.5
56	9	9.3	43.5	7.3	34.1	25.2
57	11	12.7	62.0	4.0	19.5	43.7
58	9	6.3	29.4	4.0	18.7	11.2
59	9	8.7	40.7	4.0	18.7	22.4
60	11	2.7	13.2	1.3	6.3	5.1
61	9	16.7	78.0	7.3	34.1	59.8
62	11	4.0	19.5	2.7	13.2	1.3
					18.3	Sample LAB Average
					MIN	-15.1
					MAX	59.8
					MEAN	6.6
					SD	13.6
					Transuranic $DCGL_W$	100

1 Average, LAB used to subtract from Gross Sample Activity

QC Measurements

57QC	10	5.3	24.2	2.0	9.1	14.4
19QC	10	8.0	36.5	6.7	30.6	26.8
61QC	11	4.0	19.5	3.3	16.1	9.8
54QC	9	6.7	31.3	6.3	29.4	21.6
43QC	11	3.3	16.1	2.0	9.8	6.3
					9.8	QC LAB Average
					MIN	6.3
					MAX	26.8
					MEAN	15.8
					Transuranic $DCGL_W$	100

1 Average, QC LAB used to subtract from Gross Sample Activity

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SURVEY UNIT T130D-A-004
RSC - DATA SUMMARY

Manufacturer	Eberline	Eberline	Eberline	Eberline	Eberline	Eberline
Model	SAC-4	SAC-4	SAC-4	SAC-4	SAC-4	SAC-4
Instrument ID#	5	6	7	8	13	14
Serial #	767	1164	833	952	767	1164
Cal Due Date	5/13/03	6/17/03	2/28/03	7/9/03	5/13/03	6/17/03
Analysis Date	2/24/03	2/24/03	2/24/03	2/24/03	2/25/03	2/25/03
Alpha Eff (c/d)	0 33	0 33	0 33	0 33	0 33	0 33
Alpha Bkgd (cpm)	0 1	0 0	0 0	0 0	0 0	0 2
Sample Time (min)	2	2	2	2	2	2
Bkgd Time (min)	10	10	10	10	10	10
MDC (dpm/100cm^2)	9 0	9 0	9 0	9 0	9 0	9 0

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
1	8	0	0 0
2	5	1	1.2
3	6	0	0 0
4	7	0	0 0
5	8	0	0 0
6	5	3	4.2
7	6	0	0 0
8	7	0	0 0
9	8	0	0 0
10	5	0	-0 3
11	6	1	1 5
12	7	0	0 0
13	8	0	0 0
14	5	0	-0.3
15	6	0	0 0
16	7	0	0 0
17	8	0	0 0
18	5	0	-0.3
19	6	0	0 0
20	7	0	0 0
21	9	0	0 0
22	7	0	0 0
23	5	0	-0 3
24	6	0	0 0
25	7	1	1 5
26	8	0	0 0
27	5	0	-0 3
28	6	0	0 0
29	7	0	0 0
30	8	0	0 0
31	5	1	1 2
32	6	0	0 0
33	5	0	-0 3

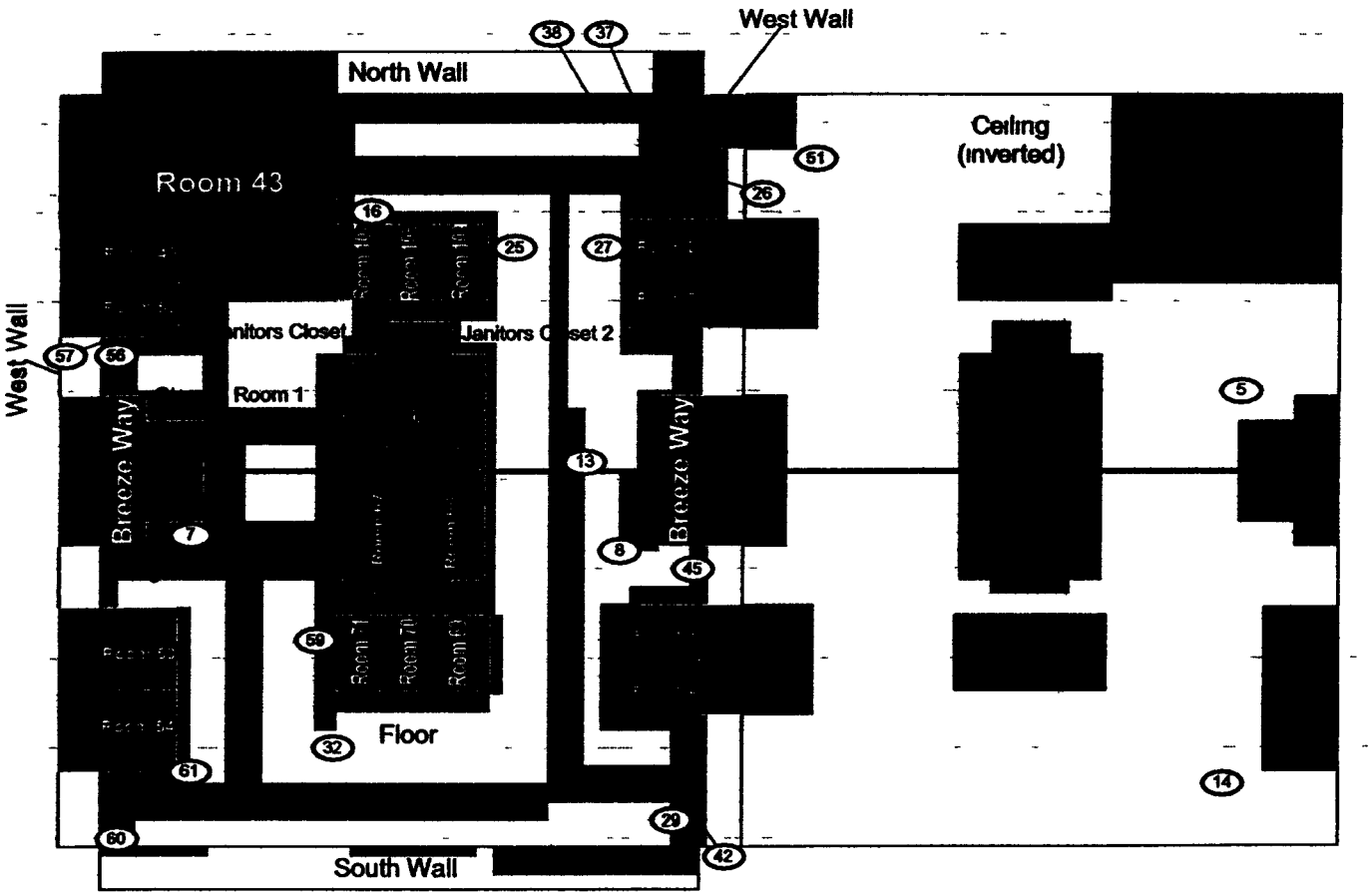
SURVEY UNIT T130D-A-004
RSC - DATA SUMMARY

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
34	6	0	00
35	7	0	00
36	8	0	00
37	5	1	12
38	6	0	00
39	7	0	00
40	8	0	00
41	5	3	42
42	6	1	15
43	7	2	30
44	13	0	00
45	14	0	-06
46	13	1	15
47	14	0	-06
48	13	0	00
49	14	0	-06
50	13	1	15
51	14	1	09
52	13	1	15
53	14	0	-06
54	13	4	61
55	14	0	-06
56	13	0	00
57	14	0	-06
58	13	0	00
59	14	0	-06
60	13	1	15
61	14	0	-06
62	13	0	00
		MIN	-06
		MAX	61
		MEAN	04
		SD	13
		Transuranic $DCGL_W$	20

PRE-DEMOLITION SURVEY FOR T130D

Survey Area: 5 **Survey Unit:** T130D-A-004 **Classification** 3
Building T130D
Survey Unit Description Interior of T130D
Total Area: 3846 sq m. **Total Floor Area.** 1447 sq. m

T130D



Scan Area

SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

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N

0 FEET 45
0 METERS 15

1 inch = 36 feet 1 grid sq = 1 sq m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s)
2,3,4,9,10,11,12

U S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL
Communications Group

MAP ID 03-0085\T130D PG1-Scn March 11, 2003

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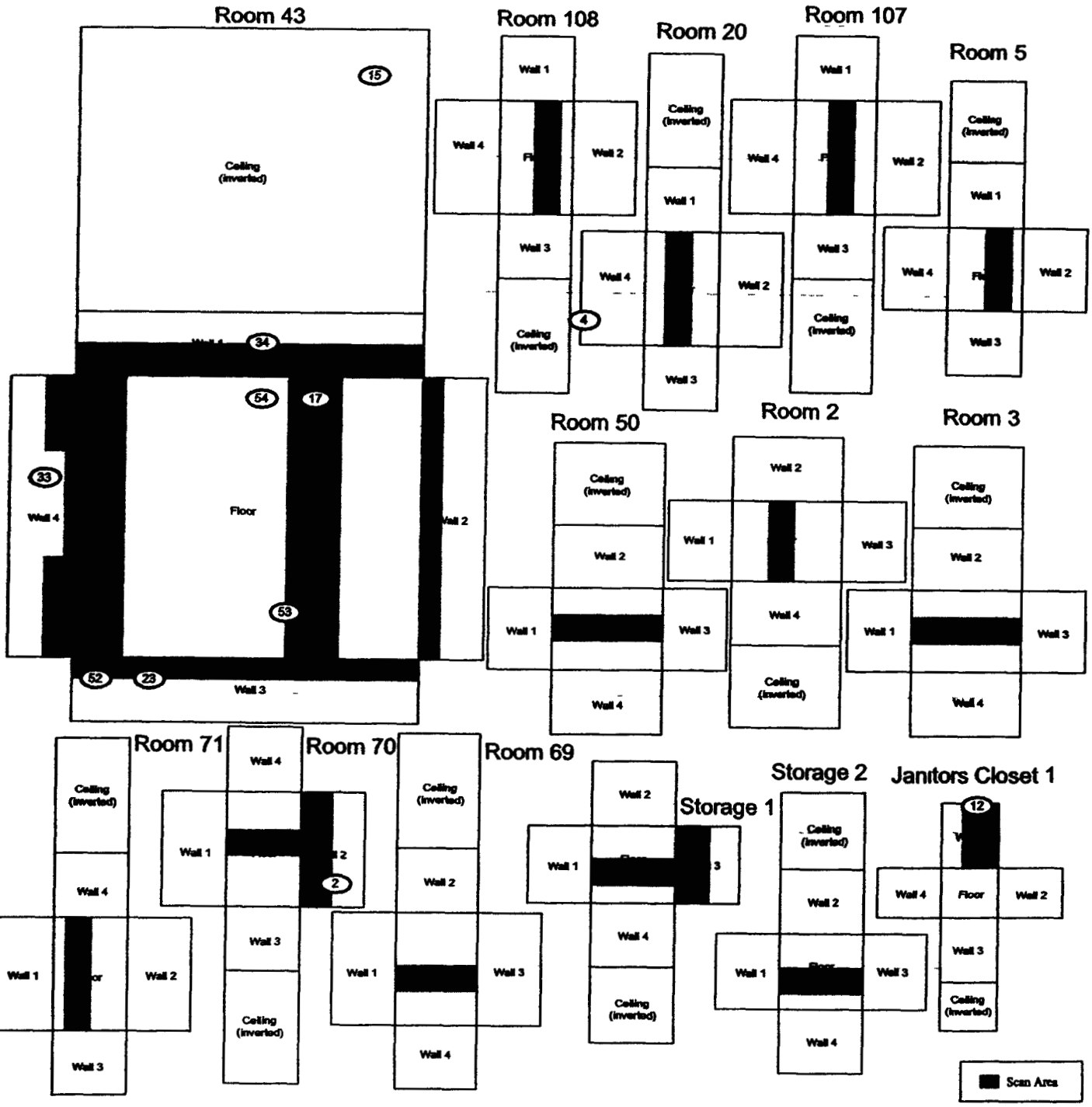
PRE-DEMOLITION SURVEY FOR T130D

Survey Area 5 **Survey Unit: T130D-A-004** **Classification 3**
Building T130D
Survey Unit Description Interior of T130D
Total Area. 3846 sq. m. **Total Floor Area 1447 sq. m.**



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq m

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s)
2,3,4,9,10,11,12

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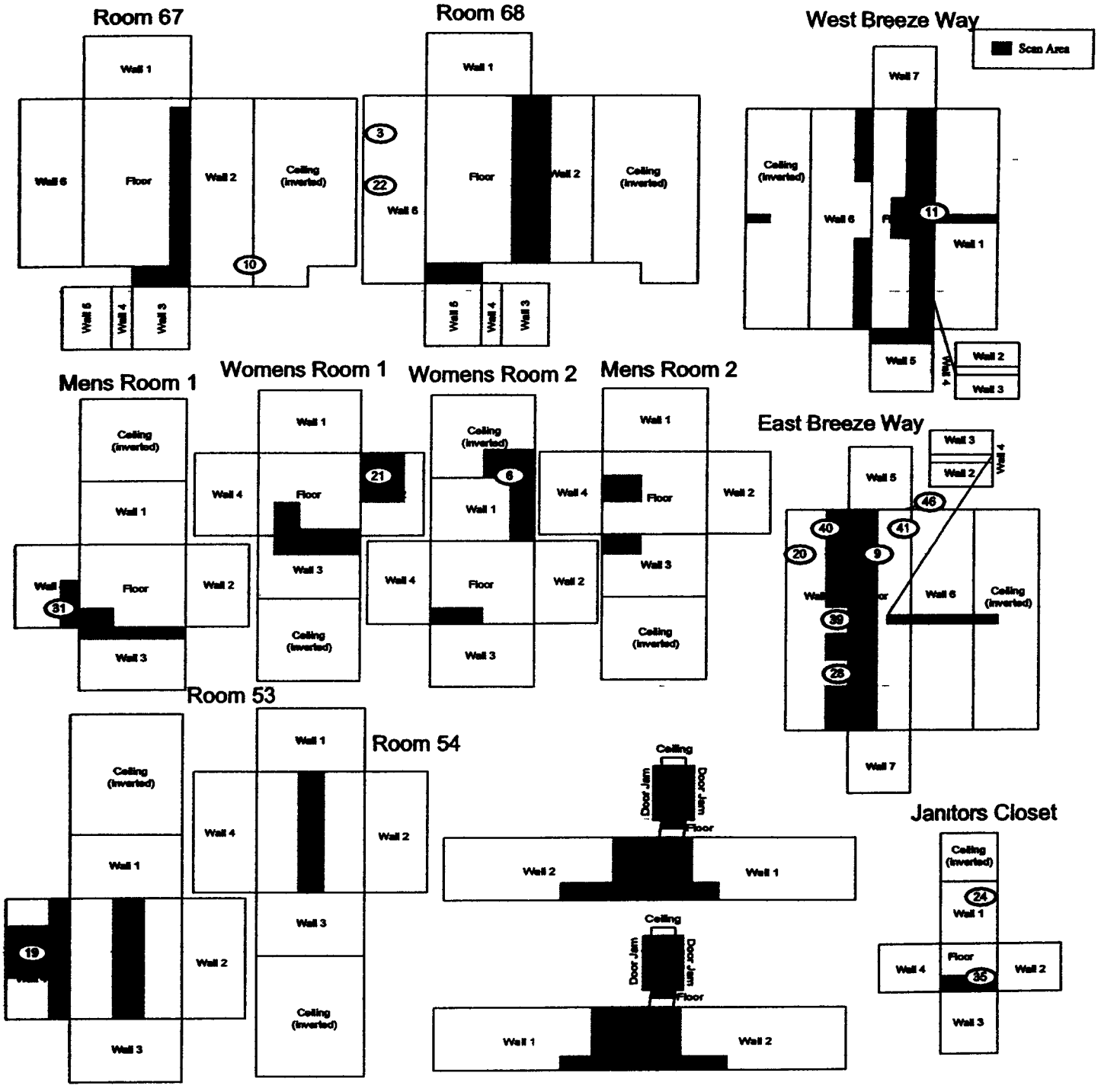
MAP ID 03-0085\T130D PG2-Scn March 11, 2003

PRE-DEMOLITION SURVEY FOR T130D

Survey Area. 5 **Survey Unit: T130D-A-004** **Classification. 3**
Building T130D
Survey Unit Description Interior of T130D
Total Area. 3846 sq. m. **Total Floor Area. 1447 sq m.**



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq m

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s)
2,3,4,9,10,11,12

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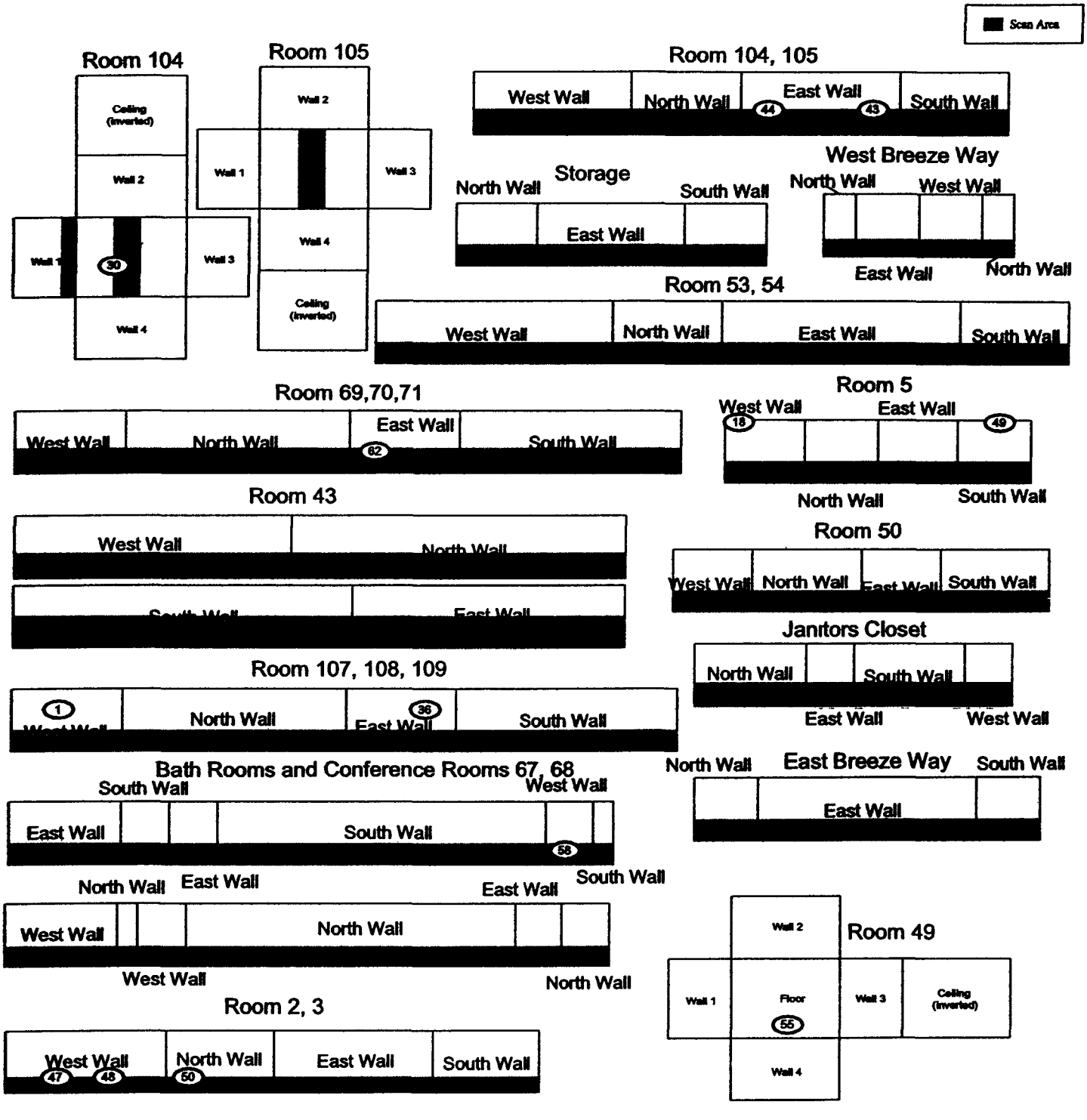
MAP ID 03-0085\T130D PG3-Scn March 11, 2003

PRE-DEMOLITION SURVEY FOR T130D

Survey Area 5 **Survey Unit:** T130D-A-004 **Classification** 3
Building T130D
Survey Unit Description. Interior of T130D
Total Area 3846 sq m **Total Floor Area** 1447 sq. m.



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s)
2,3,4,9,10,11,12

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq m

U S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

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MAP ID 03-0085\T130D PG4-Scn March 11, 2003

SURVEY UNIT T130E-A-005
RADIOLOGICAL DATA SUMMARY - PDS

Survey Unit Description: T130E Interior

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T130E-A-005
PDS Data Summary

Total Surface Activity Measurements

	62 Number Required	62 Number Obtained	
MIN	-7 8		dpm/100 cm^2
MAX	47 0		dpm/100 cm^2
MEAN	3 8		dpm/100 cm^2
STD DEV	10 6		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	62 Number Required	62 Number Obtained	
MIN	-0 6		dpm/100 cm^2
MAX	2.4		dpm/100 cm^2
MEAN	0 3		dpm/100 cm^2
STD DEV	0 8		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

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SURVEY UNIT T130E-A-005
TSA - DATA SUMMARY

Manufacturer	NE Tech	NE Tech	NE Tech	NE Tech
Model	DP-6	DP-6	DP-6	DP-6
Instrument ID#	1	2	3	4
Serial #	3125	1379	3125	1379
Cal Due Date	4/21/03	6/30/03	4/21/03	6/30/03
Analysis Date	3/25/03	3/25/03	3/25/03	3/25/03
Alpha Eff (c/d)	0.215	0.219	0.215	0.219
Alpha Bkgd (cpm)	0 7	0 0	0 7	0 0
Sample Time (min)	1.5	1.5	1.5	1.5
LAB Time (min)	1.5	1.5	1.5	1.5
MDC (dpm/100cm^2)	48.0	48.0	48 0	48.0

Manufacturer	NE Tech	NE Tech	NE Tech
Model.	DP-6	DP-6	DP-6
Instrument ID#	11	12	13
Serial #	3114	1379	3125
Cal Due Date	9/3/03	6/30/03	4/21/03
Analysis Date	3/26/03	3/26/03	3/26/03
Alpha Eff (c/d)	0 219	0.219	0.215
Alpha Bkgd (cpm)	7.3	0.7	0 0
Sample Time (min)	1.5	1.5	1.5
LAB Time (min)	1.5	1.5	1.5
MDC (dpm/100cm^2)	48 0	48 0	48.0

Sample Location Number	Instrument ID#	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1]
1	2	1.3	5 9	0 7	3.2	1.8
2	2	0 7	3.2	0 7	3.2	-4.6
3	2	0 7	3.2	0 7	3.2	-4.6
4	2	0 7	3.2	0.0	0 0	-4.6
5	1	1.3	6 0	0 7	3.3	1 7
6	1	3.3	15.3	2 7	12 6	7 6
7	3	3.3	15.3	2.7	12 6	7.6
8	12	0 0	0 0	0.7	3.2	7.8
9	2	2 7	12.3	0 7	3.2	4.6
10	13	5.3	24 7	3.3	15.3	16.9
11	12	2 0	9 1	1.3	5 9	1 4
12	2	0.0	0.0	2.0	9 1	-7.8
13	13	2.0	9.3	0 7	3.3	1.5
14	2	2.0	9 1	0 7	3.2	1 4
15	2	0 7	3.2	0 0	0 0	-4.6
16	2	1.3	5 9	1.3	5 9	-1.8
17	13	2 7	12 6	0 7	3.3	4.8
18	12	1 3	5 9	1.3	5 9	1.8
19	1	2 7	12.6	5 3	24 7	4 8
20	13	4.0	18 6	0 0	0 0	10.8
21	2	3.3	15 1	0 7	3.2	7.3
22	3	1.3	6 0	1.3	6 0	1 7
23	2	2 0	9 1	0 7	3.2	1 4
24	2	1 3	5 9	0 7	3.2	1.8
25	3	2 7	12 6	2 0	9.3	4.8
26	2	0 0	0 0	1.3	5 9	-7.8
27	3	1.3	6.0	2 0	9.3	1 7
28	12	0 0	0 0	2 7	12.3	7.8
29	13	0 7	3.3	1.3	6 0	-4.5
30	13	1 3	6 0	0 7	3.3	1 7

44

SURVEY UNIT T130E-A-005
TSA - DATA SUMMARY

Sample Location Number	Instrument ID#	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1]
31	12	0.7	3.2	2.7	12.3	-4.6
32	13	1.3	6.0	0.7	3.3	1.7
33	2	0.7	3.2	1.3	5.9	-4.6
34	2	0.7	3.2	0.7	3.2	-4.6
35	3	1.3	6.0	0.7	3.3	1.7
36	2	2.7	12.3	0.7	3.2	4.6
37	3	2.0	9.3	4.7	21.9	1.5
38	3	2.7	12.6	1.3	6.0	4.8
39	2	2.0	9.1	3.3	15.1	1.4
40	3	1.3	6.0	0.7	3.3	1.7
41	2	0.7	3.2	0.7	3.2	-4.6
42	3	1.3	6.0	2.7	12.6	1.7
43	2	5.3	24.2	2.7	12.3	16.4
44	2	4.0	18.3	0.0	0.0	10.5
45	2	0.7	3.2	1.3	5.9	-4.6
46	3	8.0	37.2	0.7	3.3	29.4
47	3	3.3	15.3	1.3	6.0	7.6
48	13	6.0	27.9	0.7	3.3	20.1
49	13	2.3	10.7	2.0	9.3	2.9
50	13	3.3	15.3	3.3	15.3	7.6
51	13	3.3	15.3	2.0	9.3	7.6
52	13	2.0	9.3	2.0	9.3	1.5
53	13	3.3	15.3	1.3	6.0	7.6
54	11	9.3	42.5	5.3	24.2	34.7
55	13	4.7	21.9	2.7	12.6	14.1
56	11	12.0	54.8	7.3	33.3	47.0
57	13	1.3	6.0	0.7	3.3	1.7
58	13	6.7	31.2	0.0	0.0	23.4
59	12	1.3	5.9	0.7	3.2	1.8
60	12	0.0	0.0	0.0	0.0	7.8
61	11	4.7	21.5	6.0	27.4	13.7
62	11	5.3	24.2	4.7	21.5	16.4

1 Average LAB used to subtract from Gross Sample Activity

7.8	Sample LAB Average
MIN	7.8
MAX	47.0
MEAN	3.8
SD	10.6
Transuranic DCGL$_W$	*100*

QC Measurements

46QC	4	0.0	0.0	0.7	3.2	0.0
44QC	3	10.7	49.8	4.0	18.6	49.8
56QC	13	2.7	12.6	1.3	6.0	12.6
54QC	13	2.0	9.3	1.3	6.0	9.3
58QC	12	0.7	3.2	0.0	0.0	3.2

1 Average QC LAB used to subtract from Gross Sample Activity

0.0	QC LAB Average
MIN	0.0
MAX	49.8
MEAN	15.0
Transuranic DCGL$_W$	100

45

SURVEY UNIT T130E-A-005
RSC - DATA SUMMARY

Manufacturer	Eberline	Eberline	Eberline	Eberline
Model	SAC-4	SAC-4	SAC-4	SAC-4
Instrument ID#	7	8	9	10
Serial #	767	1164	830	952
Cal Due Date	5/13/03	6/17/03	8/25/03	7/9/03
Analysis Date	3/25/03	3/25/03	3/25/03	3/25/03
Alpha Eff (c/d)	0 33	0 33	0.33	0 33
Alpha Bkgd (cpm)	0 2	0 1	0 1	0 0
Sample Time (min)	2	2	2	2
Bkgd Time (min)	10	10	10	10
MDC (dpm/100cm^2)	9 0	9 0	9 0	9 0

Manufacturer	Eberline	Eberline	Eberline	Eberline
Model	SAC-4	SAC-4	SAC-4	SAC-4
Instrument ID#	15	16	17	18
Serial #	767	1164	830	952
Cal Due Date	5/13/03	6/17/03	8/25/03	7/9/03
Analysis Date	3/26/03	3/26/03	3/26/03	3/26/03
Alpha Eff (c/d)	0 33	0.33	0.33	0.33
Alpha Bkgd (cpm)	0 2	0 0	0 0	0 1
Sample Time (min)	2	2	2	2
Bkgd Time (min)	10	10	10	10
MDC (dpm/100cm^2)	9 0	9 0	9 0	9 0

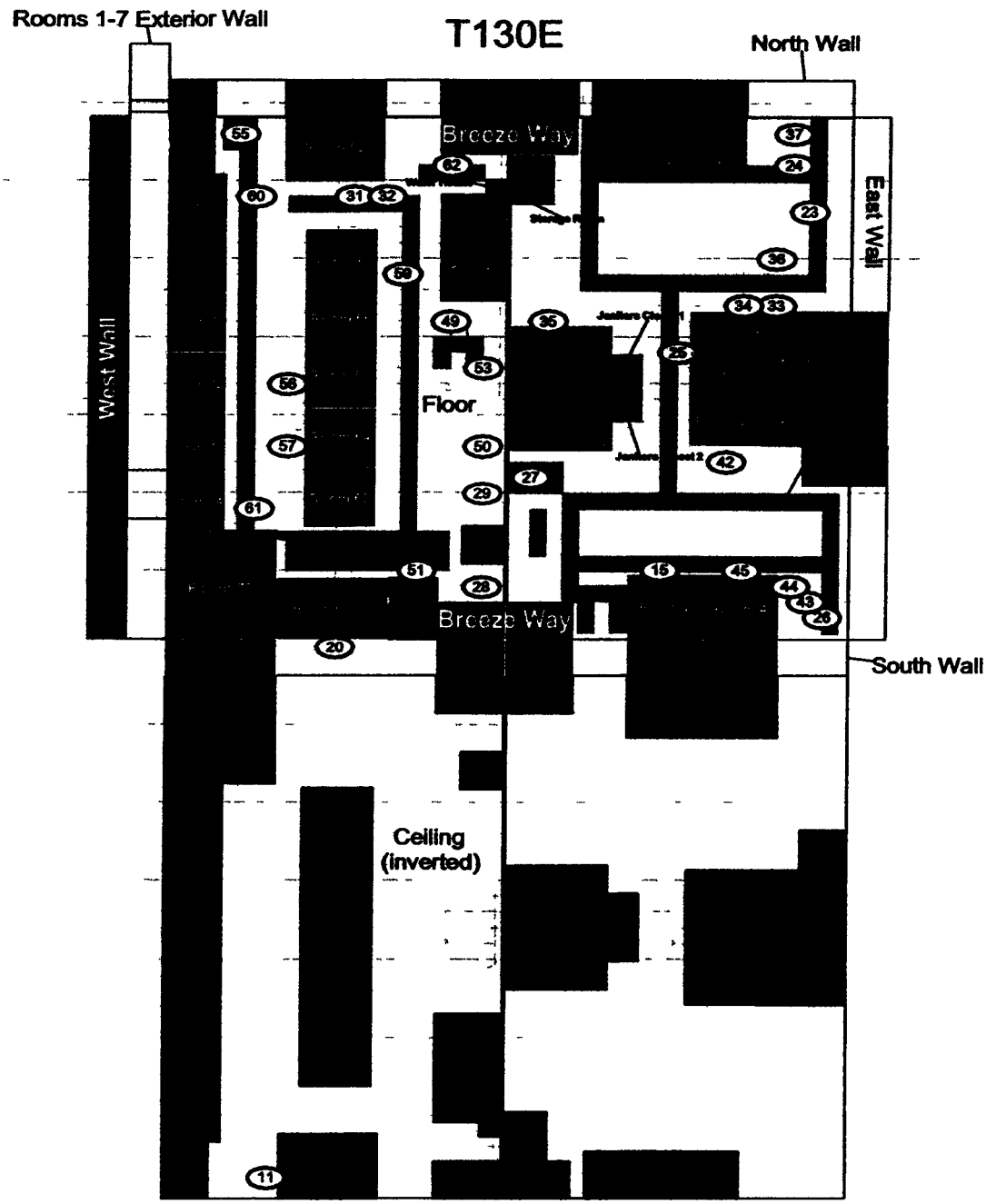
Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
1	7	0	-0 6
2	8	0	0 0
3	9	1	1 5
4	10	0	0 0
5	7	0	-0 3
6	8	1	1 5
7	9	0	0 0
8	15	0	-0 6
9	10	0	0 0
10	16	1	1.5
11	17	0	0 0
12	7	1	1.2
13	18	0	-0 3
14	8	0	0 0
15	9	0	0 0
16	10	0	0 0
17	15	0	-0 6
18	16	0	0 0
19	7	0	-0 3
20	17	0	0 0
21	8	1	1 5
22	9	1	1 5
23	10	0	0 0
24	7	1	1 2

SURVEY UNIT T130E-A-005
RSC - DATA SUMMARY

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
25	8	1	1 5
26	9	1	1 5
27	10	0	0 0
28	18	0	-0 3
29	15	0	-0 6
30	16	0	0 0
31	17	0	0 0
32	18	1	1 2
33	7	0	-0.3
34	8	1	1.5
35	9	0	0 0
36	10	1	1 5
37	7	0	-0.3
38	8	0	0 0
39	9	1	1 5
40	10	1	1.5
41	7	1	1.2
42	8	1	1 5
43	9	0	0 0
44	10	0	0 0
45	7	0	-0 3
46	8	0	0 0
47	9	0	0 0
48	15	0	-0 6
49	16	0	0 0
50	17	0	0 0
51	18	0	-0.3
52	15	0	-0 6
53	16	1	1.5
54	17	0	0 0
55	18	0	-0.3
56	15	2	2.4
57	16	0	0 0
58	17	0	0 0
59	18	1	1 2
60	15	0	-0 6
61	16	0	0 0
62	17	0	0 0
		MIN	-0 6
		MAX	2.4
		MEAN	0 3
		SD	0 8
		Transuranic $DCGL_W$	**20**

PRE-DEMOLITION SURVEY FOR T130E

Survey Area: 5 **Survey Unit: T130E-A-005** **Classification. 3**
Building T130E
Survey Unit Description Interior of T130E
Total Area 4882 sq. m. **Total Floor Area 1445 sq. m.**



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 45
0 METERS 15

1 inch = 36 feet 1 grid sq = 1 sq m

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s)
1, 2, 3, 6, 11, 12, 13, 14

U.S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966 7707 Prepared for:

CH2MHILL
Communications Group

MAP ID 03-0085\T130E PG1 April 15, 2003

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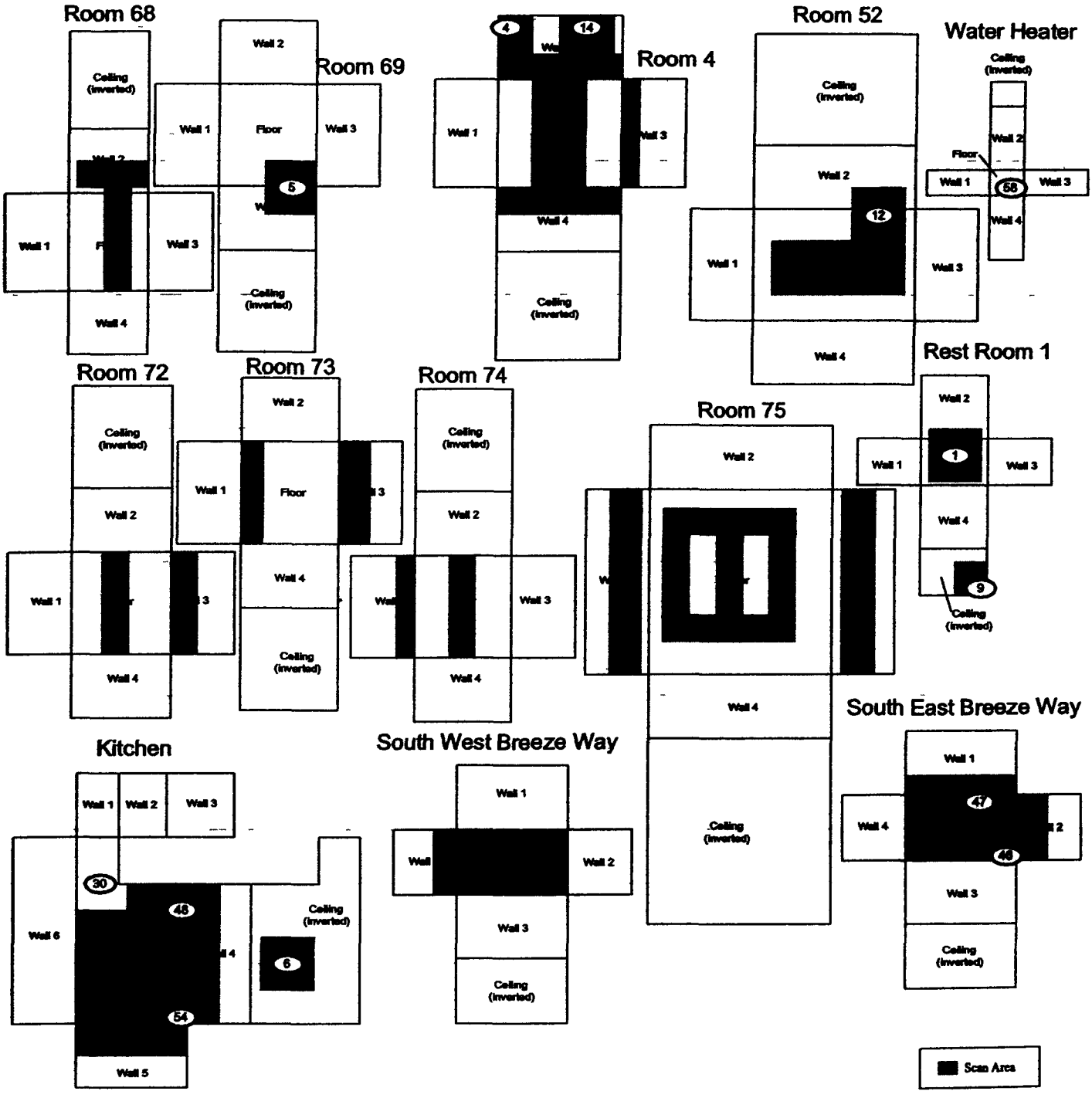
PRE-DEMOLITION SURVEY FOR T130E

Survey Area. 5 **Survey Unit. T130E-A-005** **Classification 3**
Building: T130E
Survey Unit Description Interior of T130E
Total Area 4882 sq m. **Total Floor Area 1445 sq. m.**



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grnd sq. = 1 sq m

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s)
1, 2, 3, 6, 11, 12, 13, 14

US Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

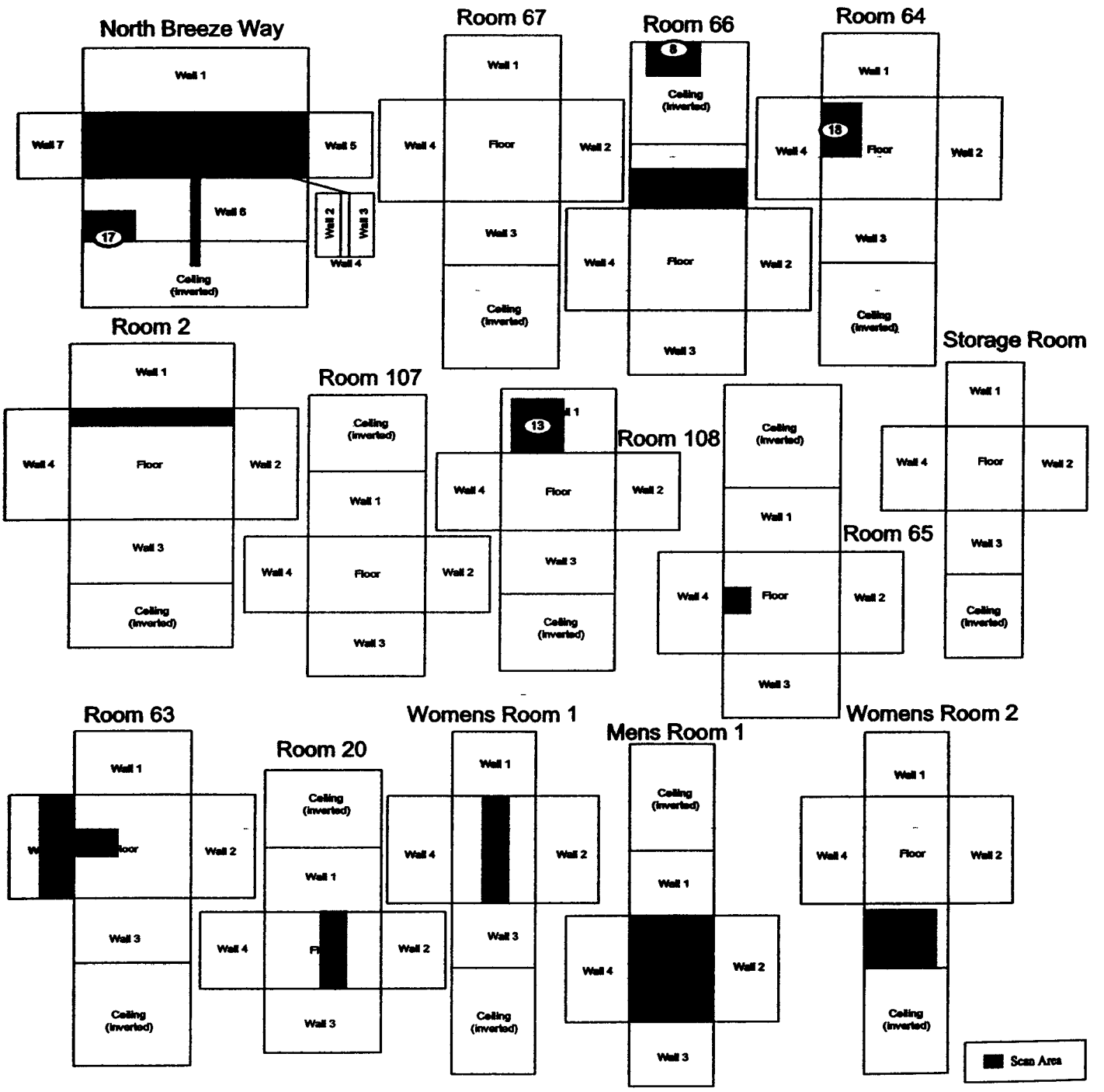
CH2MHILL
Communications Group

MAP ID 03-0085\T130E PG2 April 15, 2003

49

PRE-DEMOLITION SURVEY FOR T130E

Survey Area 5 **Survey Unit. T130E-A-005** **Classification· 3**
Building. T130E
Survey Unit Description Interior of T130E
Total Area: 4882 sq. m. **Total Floor Area. 1445 sq. m.**



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s)
1, 2, 3, 6, 11, 12, 13, 14

U.S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by· GIS Dept. 303-966 7707 Prepared for·

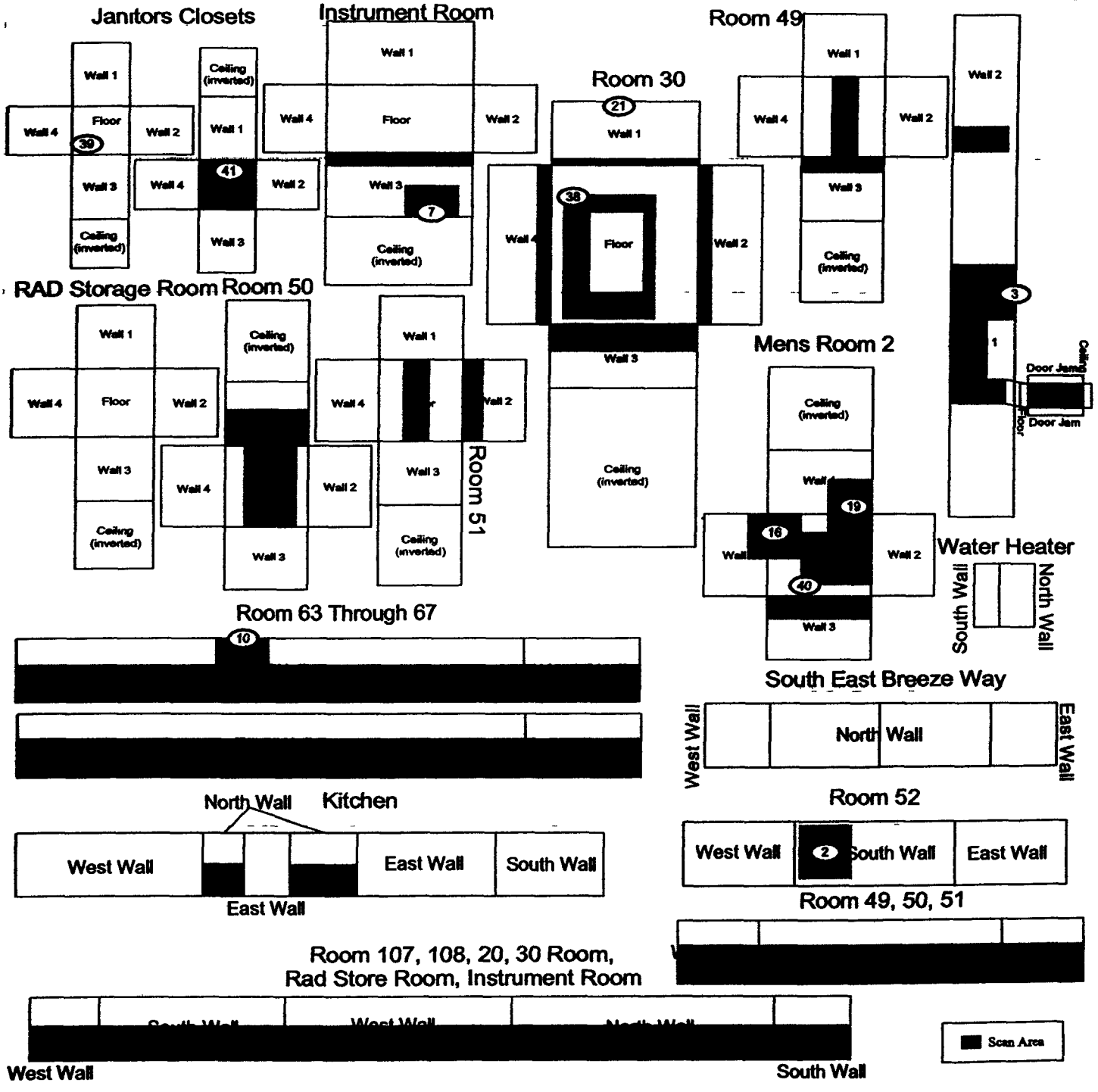
CH2MHILL Communications Group

MAP ID 03-0085\T130E PG3 April 15, 2003

50

PRE-DEMOLITION SURVEY FOR T130E

Survey Area. 5 **Survey Unit: T130E-A-005** **Classification: 3**
Building T130E
Survey Unit Description Interior of T130E
Total Area 4882 sq. m. **Total Floor Area. 1445 sq. m.**

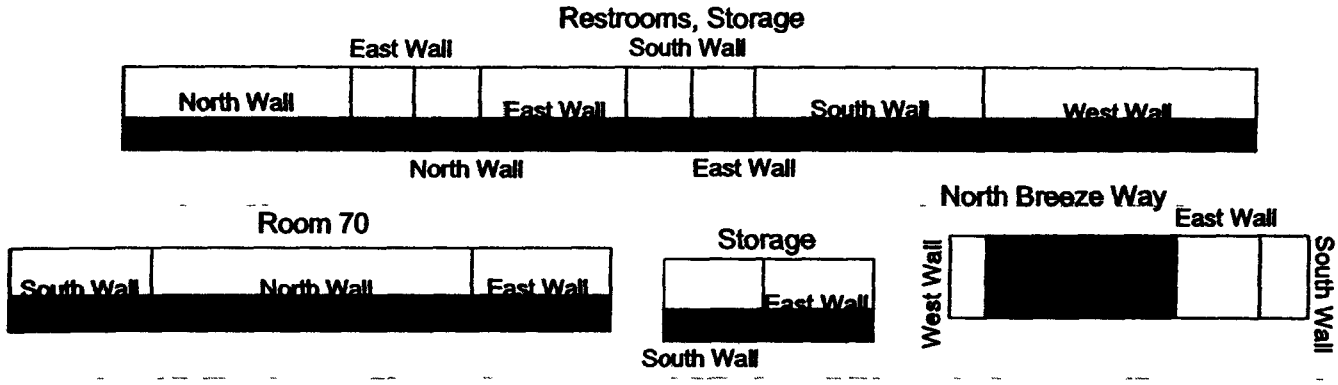


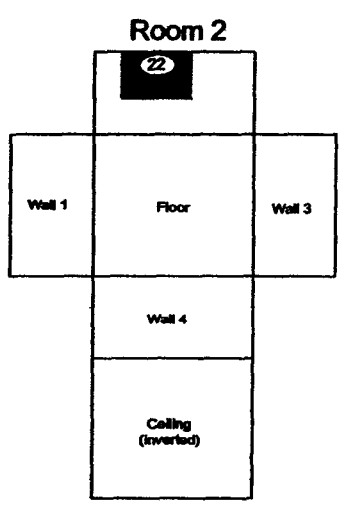
SURVEY MAP LEGEND			
Smear & TSA Location	Neither the United States Government nor Kaiser Hill Co., nor DynCorp I&ET nor any agency thereof, nor any of their employees, makes any warranty express or implied, or assumes any legal liability or responsibility for the accuracy completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.	N	U S Department of Energy Rocky Flats Environmental Technology Site
Smear, TSA & Sample Location		0 FEET 25 0 METERS 8	Prepared by: GIS Dept. 303-966-7707 Prepared for:
Open/Inaccessible Area	Scan Survey Information Survey Instrument ID #(s) & RCT ID #(s) 1, 2, 3, 6, 11, 12, 13, 14	1 inch = 18 feet 1 grid sq = 1 sq m.	CH2MHILL Communications Group MAP ID 03-0085\T130E PG4 April 15, 2003
Area in Another Survey Unit			

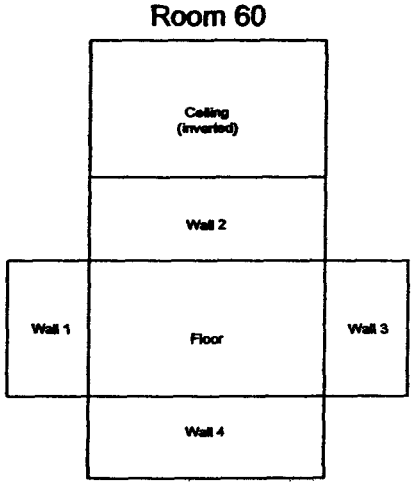
51

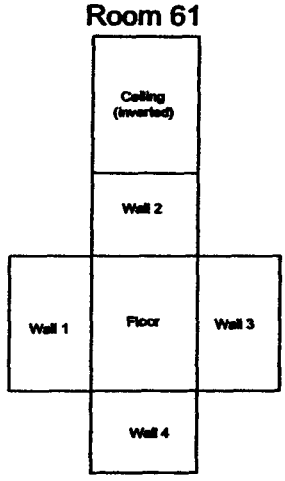
PRE-DEMOLITION SURVEY FOR T130E

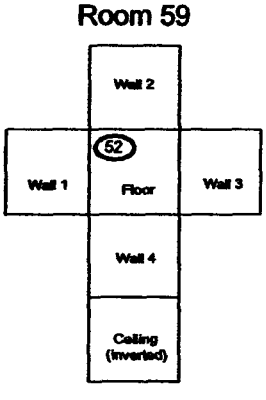
Survey Area. 5 **Survey Unit: T130E-A-005** **Classification. 3**
Building T130E
Survey Unit Description: Interior of T130E
Total Area 4882 sq. m. **Total Floor Area. 1445 sq. m.**











Scan Area

SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s)
1, 2, 3, 6, 11, 12, 13, 14

U S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7787 Prepared for:

CH2MHILL
Communications Group

MAP ID 03-0085\T130E PG5 April 15, 2003

52

SURVEY UNIT T130F-A-006
RADIOLOGICAL DATA SUMMARY - PDS

Survey Unit Description: T130F Interior

53

Total Surface Activity Measurements

	62 Number Required	62 Number Obtained	
MIN	-15 9		dpm/100 cm^2
MAX	48 7		dpm/100 cm^2
MEAN	11.5		dpm/100 cm^2
STD DEV	16 9		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	62 Number Required	62 Number Obtained	
MIN	-0 3		dpm/100 cm^2
MAX	4 2		dpm/100 cm^2
MEAN	0 6		dpm/100 cm^2
STD DEV	1 2		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

SURVEY UNIT T130F-A-006
TSA - DATA SUMMARY

Manufacturer	NF Tech	NE Tech	NE Tech	NE Tech	NE Tech	NE Tech
Model	DP-6	DP-6	DP-6	DP-6	DP-6	DP-6
Instrument ID#	5	6	7	8	9	10
Serial #	3115	1417	3126	3115	3104	3126
Cal Due Date	6/4/03	7/28/03	6/4/03	6/4/03	5/11/03	6/4/03
Analysis Date	3/4/03	3/4/03	3/4/03	3/5/03	3/5/03	3/5/03
Alpha Eff (c/d)	0.228	0.217	0.225	0.228	0.222	0.225
Alpha Bkgd (cpm)	4.0	1.3	2.0	1.3	1.3	2.0
Sample Time (min)	1.5	1.5	1.5	1.5	1.5	1.5
LAB Time (min)	1.5	1.5	1.5	1.5	1.5	1.5
MDC (dpm/100cm^2)	48.0	48.0	48.0	48.0	48.0	48.0

Sample Location Number	Instrument ID#	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1]
1	7	2.7	12.0	5.3	23.6	7.0
2	8	10.0	43.9	8.0	35.1	24.8
3	5	11.3	49.6	4.7	20.6	30.5
4	7	14.7	65.3	4.0	17.8	46.3
5	7	12.0	53.3	3.3	14.7	34.3
6	6	3.3	15.2	2.7	12.4	2.8
7	5	14.0	61.4	4.0	17.5	42.4
8	9	3.3	14.9	0.7	3.2	-4.2
9	5	3.3	14.5	4.7	20.6	-4.6
10	8	7.3	32.0	6.0	26.3	1.0
11	8	4.7	20.6	2.7	11.8	1.6
12	6	2.7	12.4	3.3	15.2	-6.6
13	5	10.7	46.9	8.0	35.1	27.9
14	7	3.3	14.7	3.3	14.7	-4.4
15	9	4.0	18.0	1.3	5.9	1.0
16	5	4.7	20.6	6.0	26.3	1.6
17	7	4.0	17.8	4.0	17.8	1..
18	5	12.0	52.6	5.3	23.2	33.6
19	5	10.0	43.9	3.3	14.5	24.8
20	8	8.7	38.2	6.0	26.3	19.1
21	5	6.0	26.3	1.3	5.7	7.3
22	7	6.0	26.7	2.0	8.9	7.6
23	6	2.7	12.4	3.3	15.2	-6.6
24	6	2.0	9.2	4.7	21.7	-9.8
25	6	4.7	21.7	4.7	21.7	2.6
26	7	2.0	8.9	2.7	12.0	10.1
27	7	5.3	23.6	2.7	12.0	4.5
28	7	2.0	8.9	3.3	14.7	10.1
29	6	2.7	12.4	4.0	18.4	-6.6
30	6	14.0	64.5	2.0	9.2	45.5
31	6	2.7	12.4	4.0	18.4	-6.6
32	6	4.7	21.7	7.3	33.6	2.6
33	7	4.0	17.8	4.0	17.8	1.3
34	7	10.7	47.6	6.7	29.8	28.5
35	7	6.0	26.7	4.7	20.9	7.6
36	7	8.0	35.6	4.0	17.8	16.5
37	6	5.3	24.4	2.0	9.2	5.4
38	6	6.0	27.6	2.0	9.2	8.6
39	6	4.5	20.7	2.3	10.6	1.7
40	6	8.7	40.1	5.3	24.4	21.1
41	7	0.7	3.1	2.0	8.9	-5.9
42	7	8.0	35.6	4.0	17.8	16.5

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SURVEY UNIT T130F-A-006
TSA - DATA SUMMARY

Sample Location Number	Instrument ID#	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1]
43	7	4.0	17.8	3.3	14.7	1.3
44	6	14.7	67.7	5.3	24.4	48.7
45	8	14.0	61.4	8.0	35.1	42.4
46	5	4.7	20.6	6.7	29.4	1.6
47	6	4.0	18.4	6.7	30.9	-0.6
48	6	2.7	12.4	3.3	15.2	-6.6
49	7	4.7	20.9	6.7	29.8	1.9
50	5	10.7	46.9	5.3	23.2	27.9
51	7	6.7	29.8	6.7	29.8	10.7
52	7	6.7	29.8	1.3	5.8	10.7
53	7	5.3	23.6	1.3	5.8	4.5
54	5	7.3	32.0	4.0	17.5	13.0
55	5	8.0	35.1	6.7	29.4	16.1
56	5	8.7	38.2	3.3	14.5	19.1
57	5	8.7	38.2	2.7	11.8	19.1
58	5	5.3	23.2	5.3	23.2	4.2
59	5	12.0	52.6	5.3	23.2	33.6
60	5	11.3	49.6	3.3	14.5	30.5
61	5	7.3	32.0	6.7	29.4	13.0
62	5	14.7	64.5	7.3	32.0	45.4
					19.0	Sample LAB Average
					MIN	15.9
					MAX	48.7
					MEAN	11.5
					SD	16.9
					Transuranic $DCGL_w$	100

1 Average LAB used to subtract from Gross Sample Activity

QC Measurements

34QC	9	9.3	41.9	4.0	18.0	18.3
5QC	9	6.0	27.0	2.0	9.0	3.5
13QC	10	6.7	29.8	4.7	20.9	6.2
4QC	9	7.3	32.9	0.7	3.2	9.3
3QC	10	6.7	29.8	5.3	23.6	6.2
					23.6	QC LAB Average
					MIN	3.5
					MAX	18.3
					MEAN	8.7
					Transuranic $DCGL_w$	100

1 Average QC LAB used to subtract from Gross Sample Activity

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SURVEY UNIT T130F-A-006
RSC - DATA SUMMARY

Manufacturer	Eberline	Eberline	Eberline	Eberline
Model	SAC-4	SAC-4	SAC-4	SAC-4
Instrument ID#	1	2	3	4
Serial #	767	1164	830	952
Cal Due Date	5/13/03	6/17/03	8/25/03	7/9/03
Analysis Date	3/4/03	3/4/03	3/4/03	3/4/03
Alpha Eff (c/d)	0.33	0.33	0.33	0.33
Alpha Bkgd (cpm)	0.1	0.0	0.1	0.1
Sample Time (min)	2	2	2	2
Bkgd Time (min)	10	10	10	10
MDC (dpm/100cm^2)	9.0	9.0	9.0	9.0

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
1	1	0	-0.3
2	2	0	0.0
3	3	0	-0.3
4	4	1	1.2
5	1	0	-0.3
6	2	0	0.0
7	3	0	-0.3
8	4	0	-0.3
9	1	2	2.7
10	2	0	0.0
11	3	0	-0.3
12	4	0	-0.3
13	1	1	1.2
14	2	2	3.0
15	3	1	1.2
16	4	1	1.2
17	1	1	1.2
18	2	1	1.5
19	3	0	-0.3
20	4	0	-0.3
21	1	0	-0.3
22	2	0	0.0
23	3	0	-0.3
24	4	3	4.2
25	1	0	-0.3
26	2	1	1.5
27	3	0	-0.3
28	4	1	1.2
29	1	0	-0.3
30	2	2	3.0

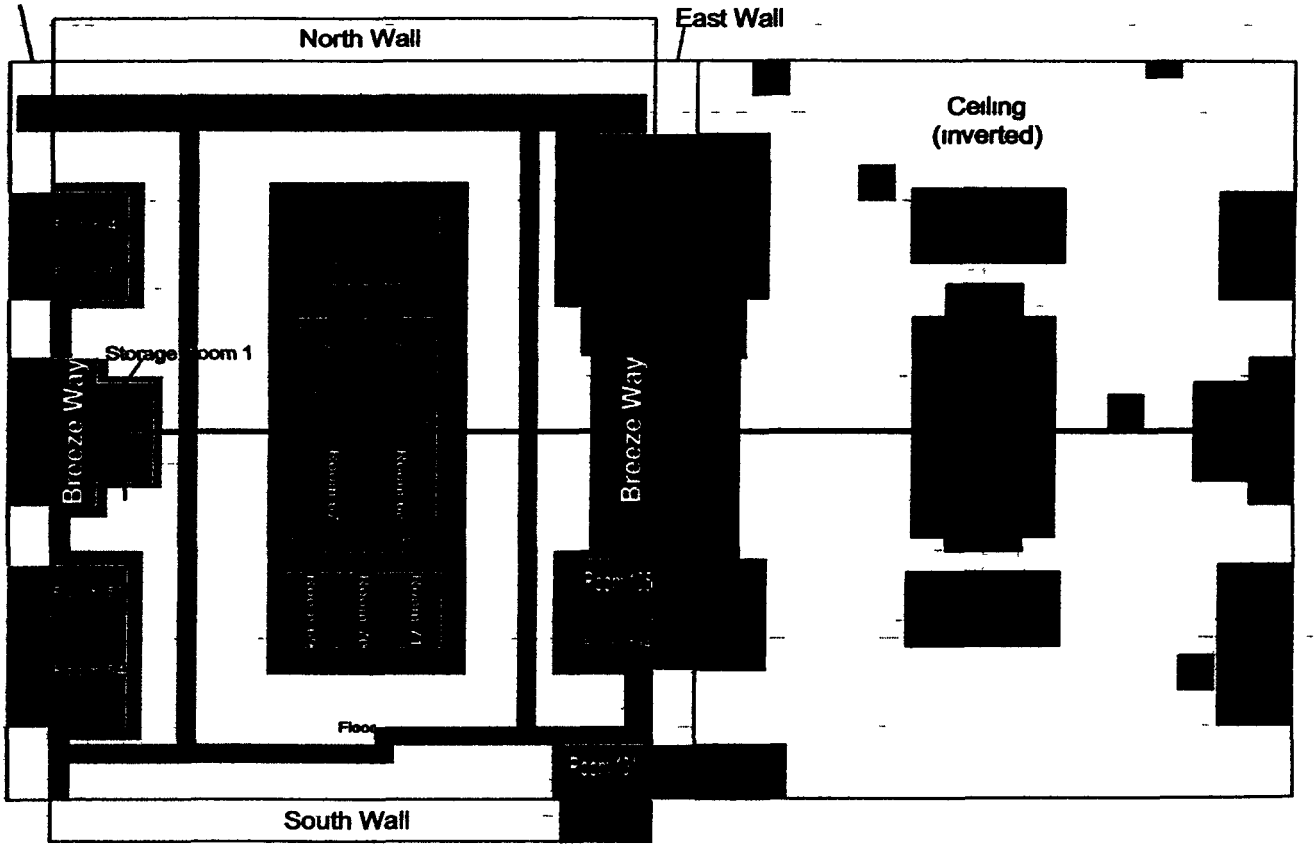
SURVEY UNIT T130F-A-006
RSC - DATA SUMMARY

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
31	3	0	-0 3
32	4	0	-0 3
33	1	1	1 2
34	2	1	1 5
35	3	0	-0.3
36	4	0	-0 3
37	1	0	-0.3
38	2	2	3 0
39	3	1	1 2
40	4	0	-0 3
41	1	0	-0 3
42	2	1	1 5
43	3	0	-0 3
44	4	0	-0 3
45	1	0	-0 3
46	2	0	0 0
47	3	0	-0.3
48	4	1	1 2
49	1	1	1 2
50	2	0	0 0
51	3	0	-0 3
52	4	1	1 2
53	1	1	1 2
54	2	0	0 0
55	3	0	-0 3
56	4	0	-0.3
57	1	1	1 2
58	2	0	0 0
59	3	0	-0 3
60	4	0	-0 3
61	1	3	4 2
62	2	2	3 0
		MIN	-0 3
		MAX	4 2
		MEAN	0 6
		SD	1 2
		Transuranic $DCGL_W$	**20**

58

PRE-DEMOLITION SURVEY FOR T130F

Survey Area: 5 **Survey Unit: T130F-A-006** **Classification: 3**
Building T130F
Survey Unit Description Interior of T130F
Total Area 2864 sq. m. **Total Floor Area. 1412 sq m.**



Scan Area

SURVEY MAP LEGEND
- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 45
0 METERS 15

1 inch = 36 feet 1 grid sq = 1 sq m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s)
5, 6, 7, 9, 10

U S Department of Energy
Rocky Flats Environmental Technology Site

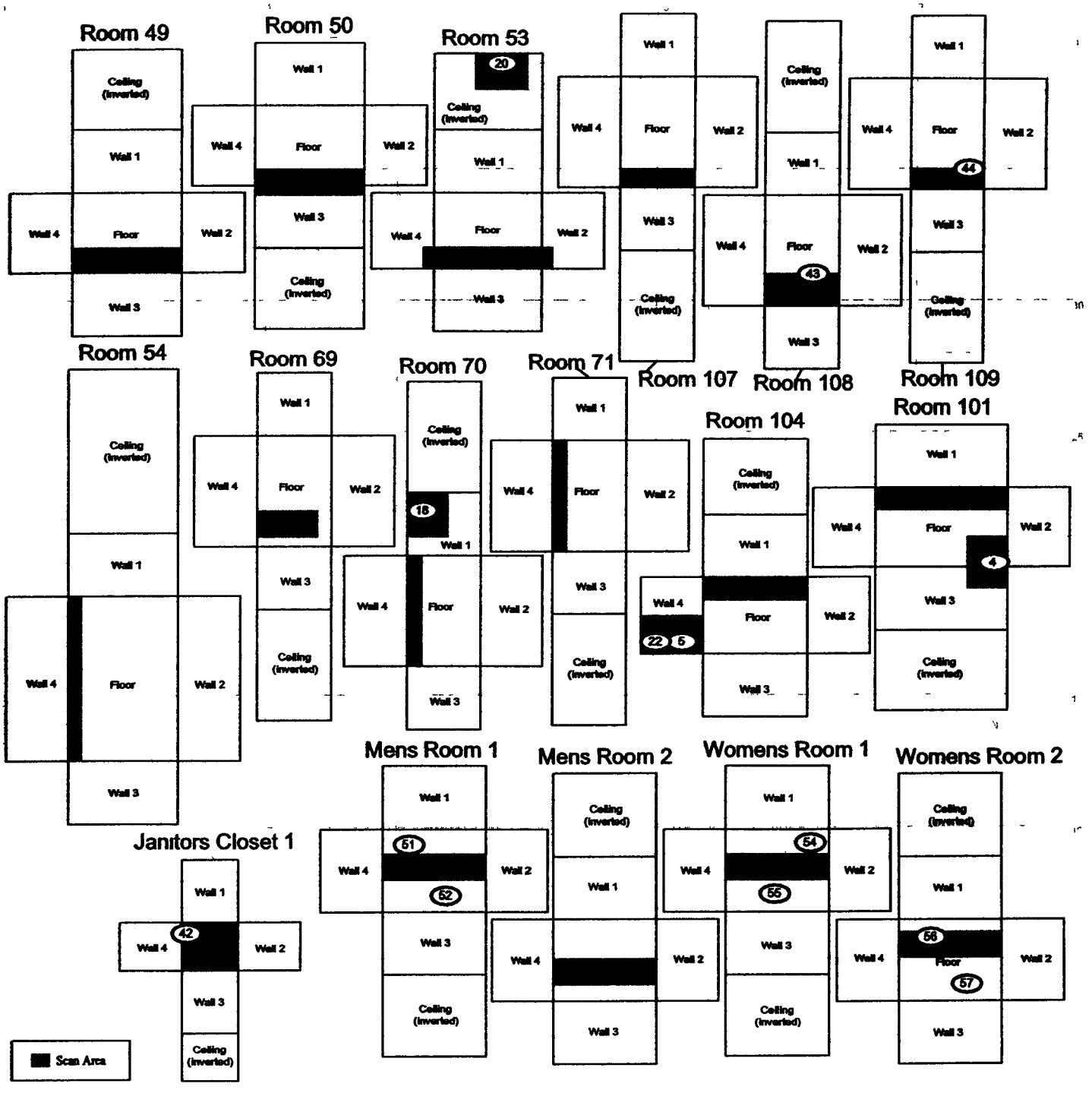
Prepared by: GIS Dept. 303-966-7707 Prepared for:

MAP ID 03-0085\T130F Pg1 April 15, 2003

59

PRE-DEMOLITION SURVEY FOR T130F

Survey Area. 5 **Survey Unit: T130F-A-006** **Classification. 3**
Building· T130F
Survey Unit Description. Interior of T130F
Total Area 2864 sq. m. **Total Floor Area 1412 sq m.**



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s)
5, 6, 7, 9, 10

U.S Department of Energy
Rocky Flats Environmental Technology Site

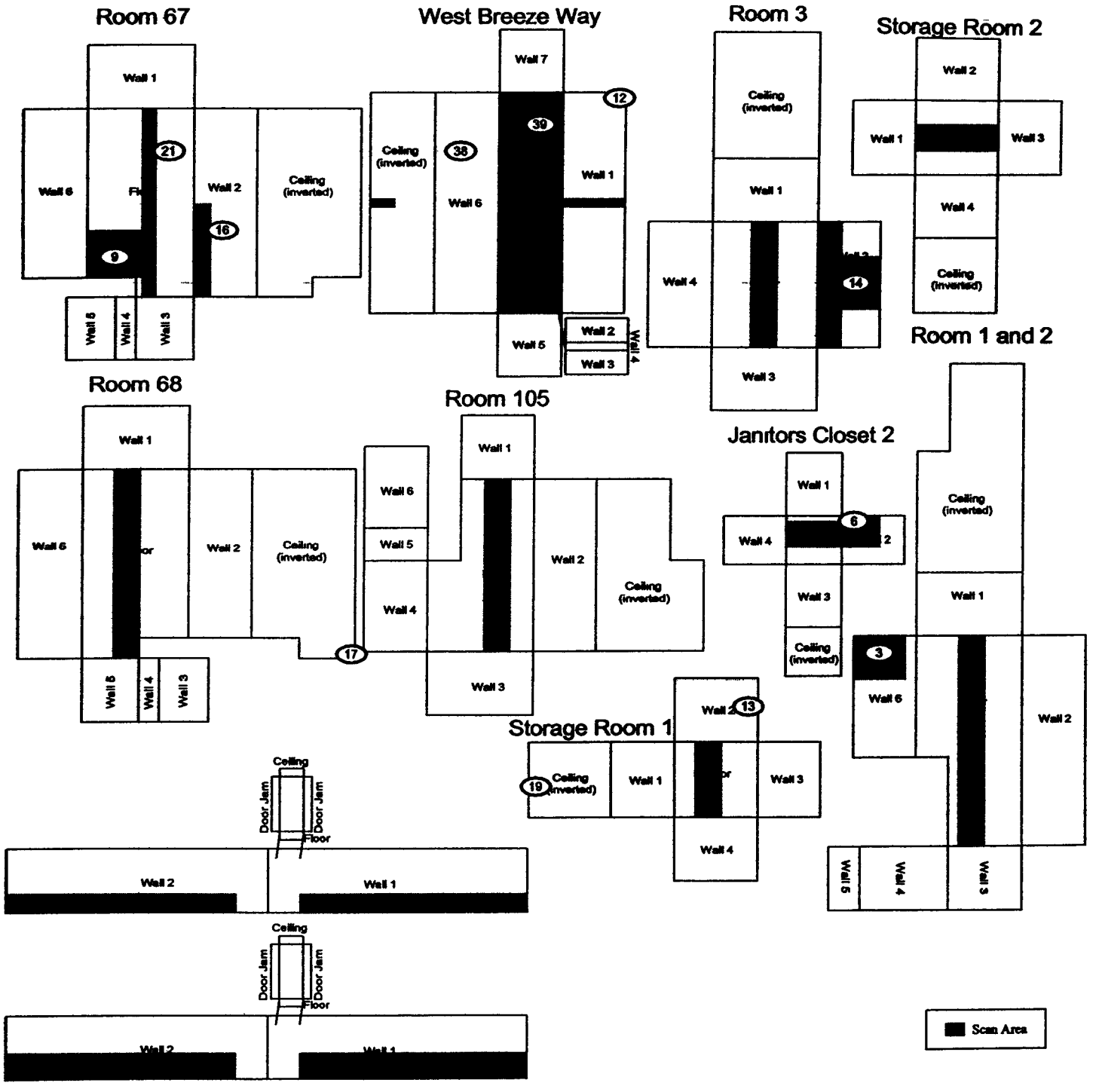
Prepared by· GIS Dept. 303-966-7707 Prepared for·

CH2MHILL
Communications Group

MAP ID 03-0085\T130F Pg2 April 15, 2003

PRE-DEMOLITION SURVEY FOR T130F

Survey Area. 5 **Survey Unit: T130F-A-006** **Classification. 3**
Building T130F
Survey Unit Description Interior of T130F
Total Area 2864 sq. m. **Total Floor Area 1412 sq. m.**



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq = 1 sq m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s)
5, 6, 7, 9, 10

U.S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

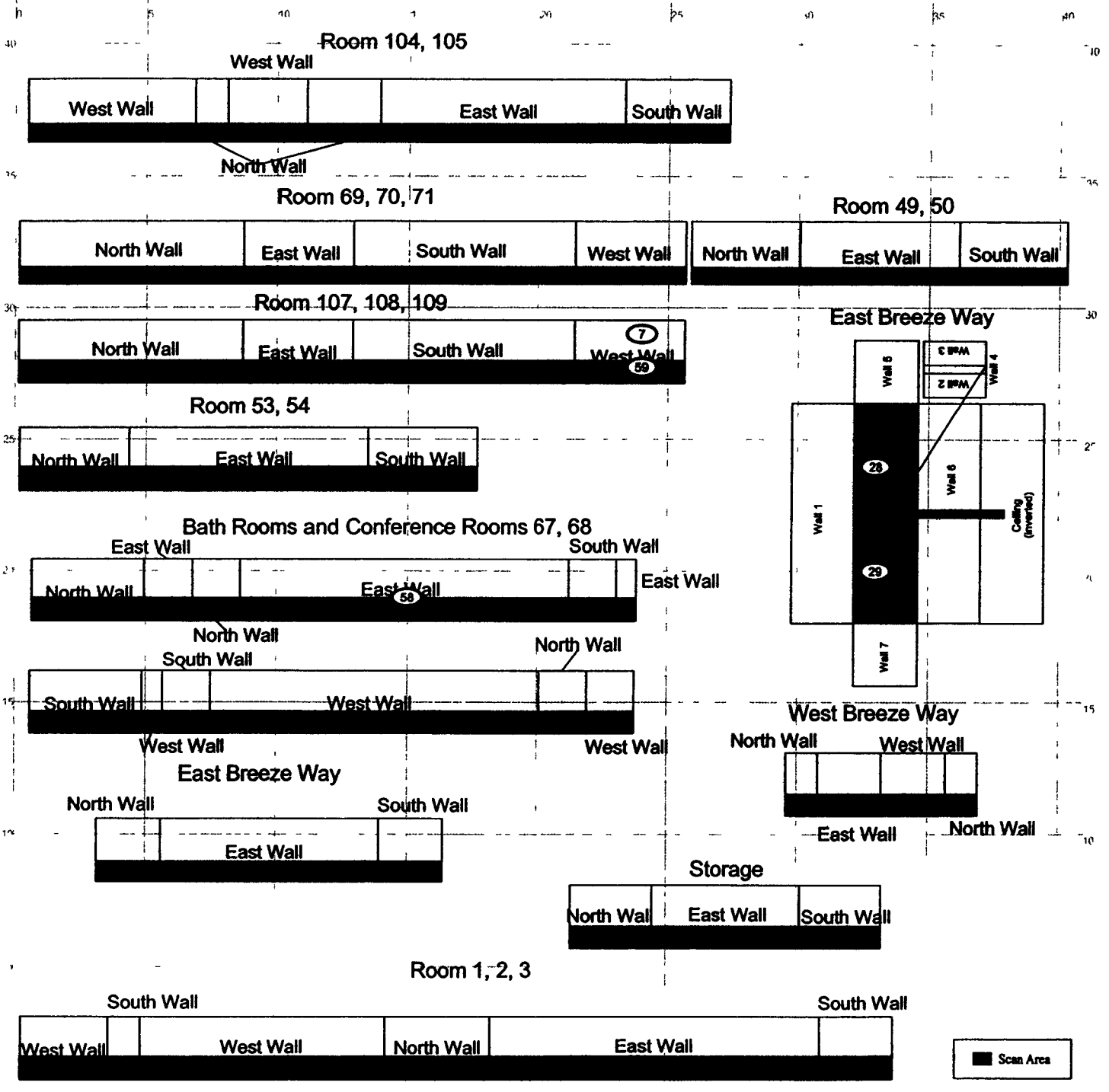
CH2MHILL
Communications Group

MAP ID 03-0065\T130F Pg3 April 15, 2003

61

PRE-DEMOLITION SURVEY FOR T130F

Survey Area 5 **Survey Unit** T130F-A-006 **Classification** 3
Building T130F
Survey Unit Description Interior of T130F
Total Area 2864 sq m **Total Floor Area** 1412 sq m



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq = 1 sq m

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s)
5, 6, 7, 9, 10

U S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by GIS Dept. 303-966-7707 Prepared for

CH2MHILL

MAP ID 03-0085\T130F Pg4 April 15, 2003

62

SURVEY UNIT T130G-A-007
RADIOLOGICAL DATA SUMMARY - PDS

Survey Unit Description: T130G Interior

63

T130G-A-007
PDS Data Summary

Total Surface Activity Measurements

	62 Number Required	62 Number Obtained	
MIN	-18 3		dpm/100 cm^2
MAX	46 4		dpm/100 cm^2
MEAN	8 6		dpm/100 cm^2
STD DEV	13 1		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	62 Number Required	62 Number Obtained	
MIN	-1 2		dpm/100 cm^2
MAX	4 2		dpm/100 cm^2
MEAN	0 2		dpm/100 cm^2
STD DEV	1.2		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

64

SURVEY UNIT T130G-A-007
TSA - DATA SUMMARY

Manufacturer	NE Tech	NE Tech	NE Tech	NE Tech
Model	DP-6	DP-6	DP-6	DP-6
Instrument ID#	4	5	6	7
Serial #	1417	1256	1249	1417
Cal Due Date	7/28/03	6/30/03	4/5/03	7/28/03
Analysis Date	2/25/03	2/25/03	2/26/03	2/26/03
Alpha Eff (c/d)	0.217	0.234	0.205	0.217
Alpha Bkgd (cpm)	1.3	4.0	4.7	2.7
Sample Time (min)	1.5	1.5	1.5	1.5
LAB Time (min)	1.5	1.5	1.5	1.5
MDC (dpm/100cm^2)	48.0	48.0	48.0	48.0

Sample Location Number	Instrument ID#	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1]
1	4	7.3	33.6	4.0	18.4	12.3
2	5	6.7	28.6	5.3	22.6	7.3
3	5	8.0	34.2	5.3	22.6	12.8
4	5	6.7	28.6	5.3	22.6	7.3
5	5	4.0	17.1	4.7	20.1	-4.2
6	6	2.7	13.2	1.3	6.3	-8.2
7	4	4.0	18.4	3.3	15.2	2.9
8	5	6.7	28.6	4.0	17.1	7.3
9	6	4.0	19.5	6.0	29.3	1.8
10	4	4.0	18.4	0.7	3.2	2.9
11	5	0.7	3.0	4.0	17.1	18.3
12	7	14.0	64.5	8.0	36.9	43.2
13	6	3.3	16.1	5.3	25.9	5.2
14	5	10.7	45.7	5.3	22.6	24.4
15	4	3.3	15.2	4.7	21.7	-6.1
16	6	7.3	35.6	2.7	13.2	14.3
17	6	4.0	19.5	2.0	9.8	1.8
18	4	4.0	18.4	3.3	15.2	2.9
19	4	8.0	36.9	0.7	3.2	15.5
20	7	8.0	36.9	8.0	36.9	15.5
21	4	8.7	40.1	1.3	6.0	18.8
22	4	9.3	42.9	4.7	21.7	21.5
23	6	3.3	16.1	3.3	16.1	5.2
24	6	6.0	29.3	3.3	16.1	7.9
25	7	4.0	18.4	4.7	21.7	2.9
26	6	3.3	16.1	3.3	16.1	5.2
27	7	6.7	30.9	8.0	36.9	9.5
28	6	2.0	9.8	2.0	9.8	-11.6
29	7	12.7	58.5	2.0	9.2	37.2
30	6	4.0	19.5	1.3	6.3	1.8
31	7	10.0	46.1	5.3	24.4	24.7
32	6	4.7	22.9	4.0	19.5	1.6
33	7	12.0	55.3	6.0	27.6	34.0
34	6	6.7	32.7	2.7	13.2	11.3
35	7	6.7	30.9	8.0	36.9	9.5
36	6	4.7	22.9	4.7	22.9	1.6
37	7	6.0	27.6	7.3	33.6	6.3
38	6	6.7	32.7	7.3	35.6	11.3
39	7	7.3	33.6	5.3	24.4	12.3
40	6	4.7	22.9	4.0	19.5	1.6
41	6	5.3	25.9	4.7	22.9	4.5
42	7	10.0	46.1	8.0	36.9	24.7

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SURVEY UNIT T130G-A-007
TSA - DATA SUMMARY

Sample Location Number	Instrument ID#	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1]
43	6	9.3	45.4	3.3	16.1	24.0
44	7	9.3	42.9	3.3	15.2	21.5
45	6	7.3	35.6	6.0	29.3	14.3
46	6	8.0	39.0	4.0	19.5	17.7
47	7	4.7	21.7	4.7	21.7	0.3
48	6	6.0	29.3	7.3	35.6	7.9
49	7	6.7	30.9	8.0	36.9	9.5
50	7	14.7	67.7	5.3	24.4	46.4
51	6	5.3	25.9	7.3	35.6	4.5
52	6	5.3	25.9	6.7	32.7	4.5
53	7	6.7	30.9	6.7	30.9	9.5
54	6	3.3	16.1	3.3	16.1	-5.2
55	7	12.0	55.3	4.7	21.7	34.0
56	7	6.0	27.6	4.7	21.7	6.3
57	7	4.0	18.4	4.7	21.7	2.9
58	6	6.3	30.7	2.7	13.2	9.4
59	6	5.3	25.9	6.0	29.3	4.5
60	6	3.3	16.1	4.0	19.5	5.2
61	7	6.0	27.6	3.3	15.2	6.3
62	6	6.7	32.7	2.0	9.8	11.3
					21.3	Sample LAB Average
					MIN	-18.3
					MAX	46.4
					MEAN	8.6
					SD	13.1
					Transuranic $DCGL_w$	100

[1] Average LAB used to subtract from Gross Sample Activity

QC Measurements

58 QC	7	10.0	46.1	6.7	30.9	18.4
29 QC	6	6.0	29.3	5.3	25.9	1.6
30 QC	7	4.0	18.4	1.3	6.0	9.2
8 QC	6	6.0	29.3	4.0	19.5	1.6
43 QC	7	6.0	27.6	6.0	27.6	0.0
					27.6	QC LAB Average
					MIN	-9.2
					MAX	18.4
					MEAN	2.5
					Transuranic $DCGL_w$	100

[1] Average QC LAB used to subtract from Gross Sample Activity

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SURVEY UNIT T130G-A-007
RSC - DATA SUMMARY

Manufacturer	Eberline	Eberline	Eberline	Eberline
Model	SAC-4	SAC-4	SAC-4	SAC-4
Instrument ID#	8	9	10	11
Serial #	767	1164	830	952
Cal Due Date.	5/13/03	6/17/03	8/25/03	7/9/03
Analysis Date	2/26/03	2/26/03	2/26/03	2/26/03
Alpha Eff (c/d)	0 33	0 33	0.33	0 33
Alpha Bkgd (cpm)	0 1	0 4	0 1	0 1
Sample Time (min)	2	2	2	2
Bkgd Time (min)	10	10	10	10
MDC (dpm/100cm^2)	9 0	9 0	9 0	9 0

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
1	11	0	-0 3
2	10	2	2.7
3	9	0	-1.2
4	8	0	-0 3
5	11	0	-0 3
6	10	0	-0 3
7	9	0	-1 2
8	8	1	1.2
9	11	0	-0.3
10	10	0	-0 3
11	9	0	-1.2
12	8	0	-0 3
13	11	0	-0 3
14	10	0	-0.3
15	9	0	-1 2
16	8	0	-0 3
17	11	1	1.2
18	10	0	-0.3
19	9	0	-1.2
20	8	0	-0.3
21	11	0	-0.3
22	10	0	-0 3
23	9	0	-1.2
24	8	0	-0.3
25	11	0	-0 3
26	10	1	1 2
27	9	2	1 8
28	8	0	-0 3
29	11	0	-0 3
30	10	1	1 2
31	9	0	-1 2
32	8	1	1 2
33	11	1	1 2

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SURVEY UNIT T130G-A-007
RSC - DATA SUMMARY

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
34	10	0	-0 3
35	9	0	-1.2
36	8	0	-0 3
37	11	0	-0 3
38	10	1	1 2
39	9	0	-1.2
40	8	2	2.7
41	11	0	-0.3
42	10	0	-0 3
43	9	2	1 8
44	8	0	-0.3
45	11	0	-0.3
46	10	1	1.2
47	9	1	0.3
48	8	1	1.2
49	11	0	-0 3
50	10	0	-0.3
51	9	0	-1 2
52	8	1	1 2
53	11	0	-0 3
54	10	3	4 2
55	9	2	1 8
56	11	0	-0 3
57	8	1	1.2
58	8	1	1 2
59	11	1	1.2
60	10	1	1.2
61	9	0	-1.2
62	8	1	1.2
		MIN	-1.2
		MAX	4.2
		MEAN	0.2
		SD	1.2
		Transuranic $DCGL_W$	20

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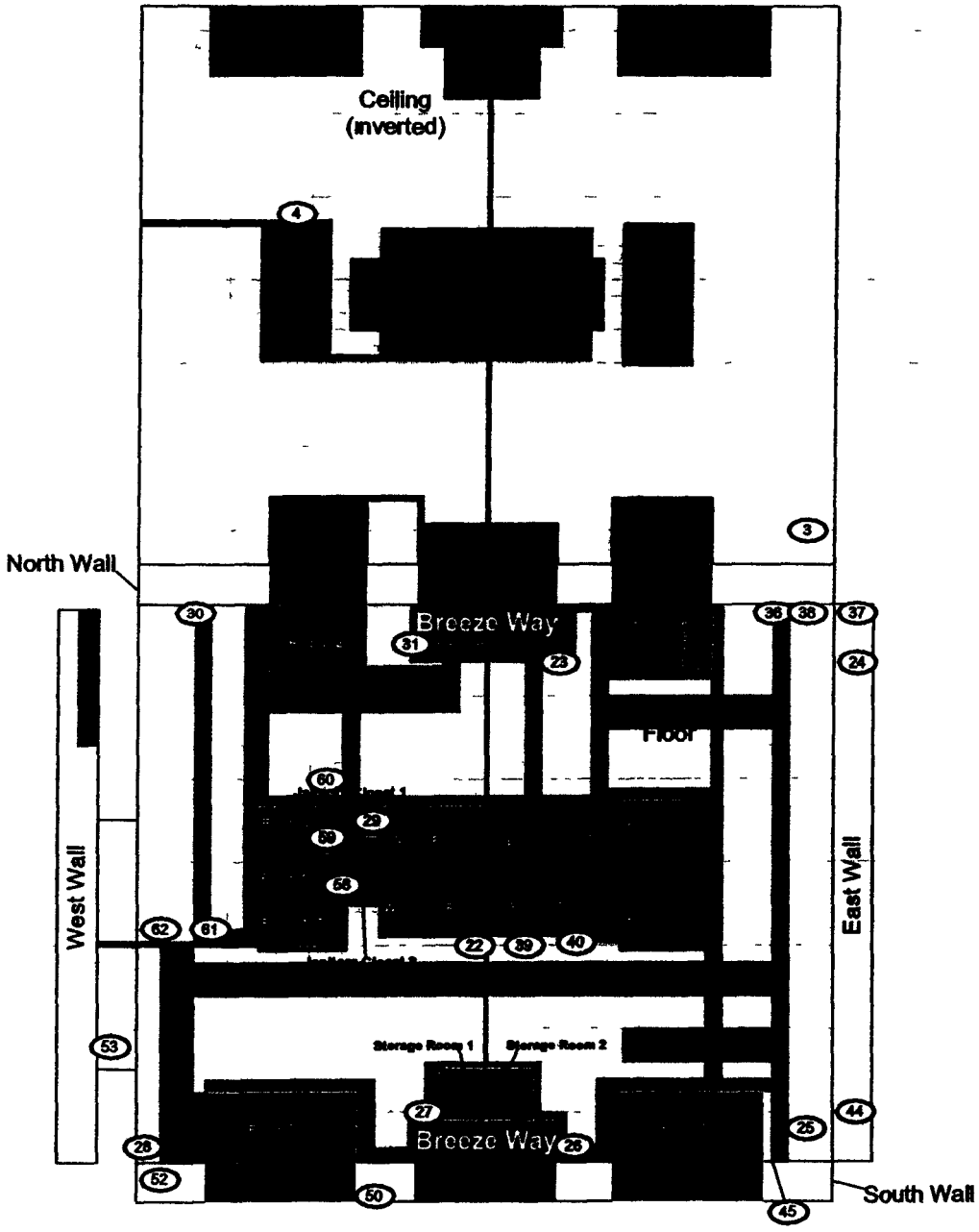
PRE-DEMOLITION SURVEY FOR T130G

Survey Area: 5 **Survey Unit. T130G-A-007** **Classification. 3**
Building· T130G
Survey Unit Description Interior of T130G
Total Area· 4584 sq. m **Total Floor Area 1402 sq. m.**

T130G



Scan Area

SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 45
0 METERS 15

1 inch = 36 feet 1 grid sq. = 1 sq. m.

U.S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL Communications Group

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s)
1,2,3,5,6,7

MAP ID 03-0085\T130G Pg1-Scn April 16, 2003

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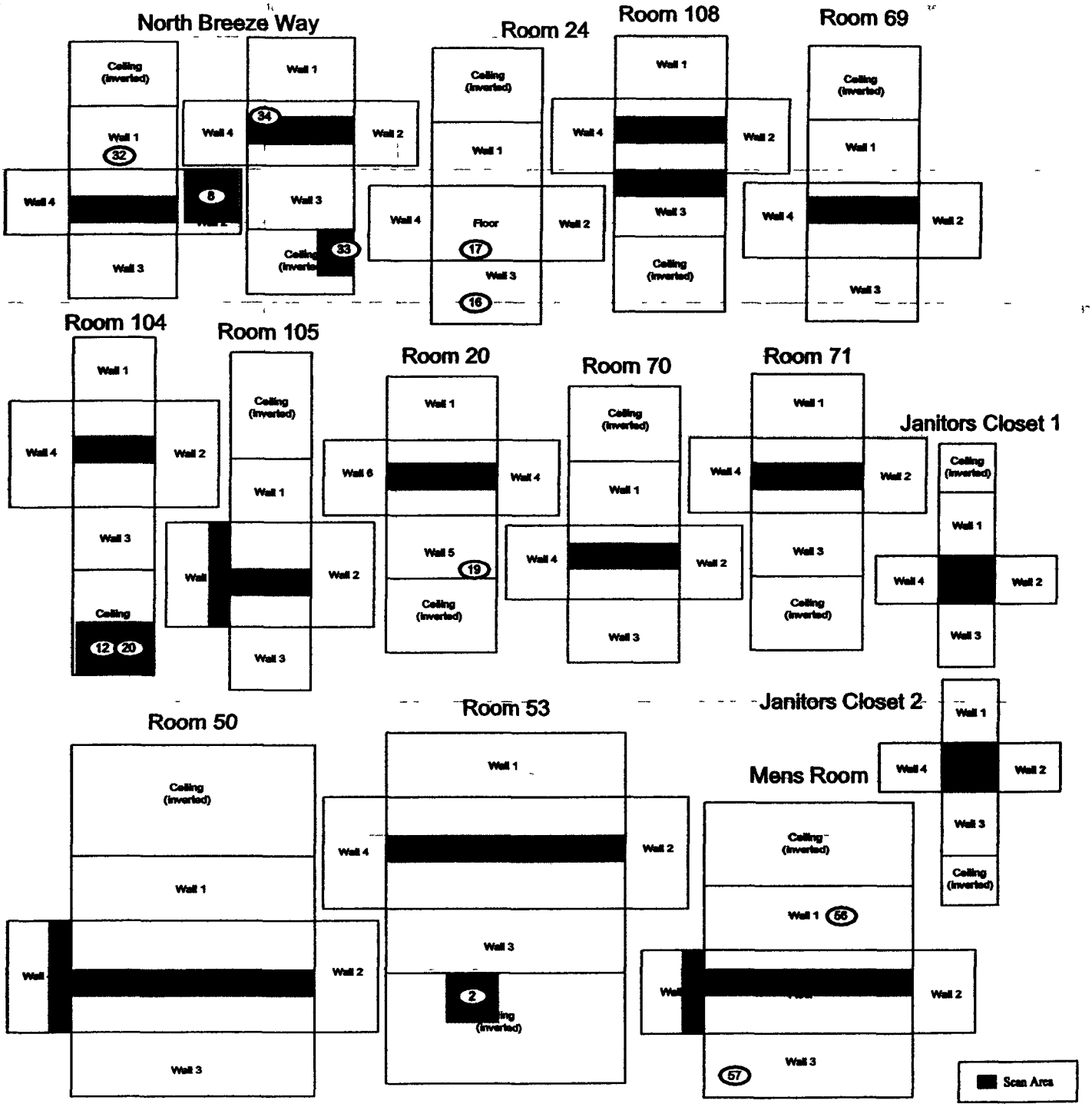
PRE-DEMOLITION SURVEY FOR T130G

Survey Area. 5 **Survey Unit: T130G-A-007** **Classification. 3**
Building T130G
Survey Unit Description: Interior of T130G
Total Area. 4584 sq. m. **Total Floor Area 1402 sq. m.**



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq m

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s)
1,2,3,5,6,7

U.S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL Communications Group

MAP ID 03-0085\T130G Pg2-Scn April 16, 2003

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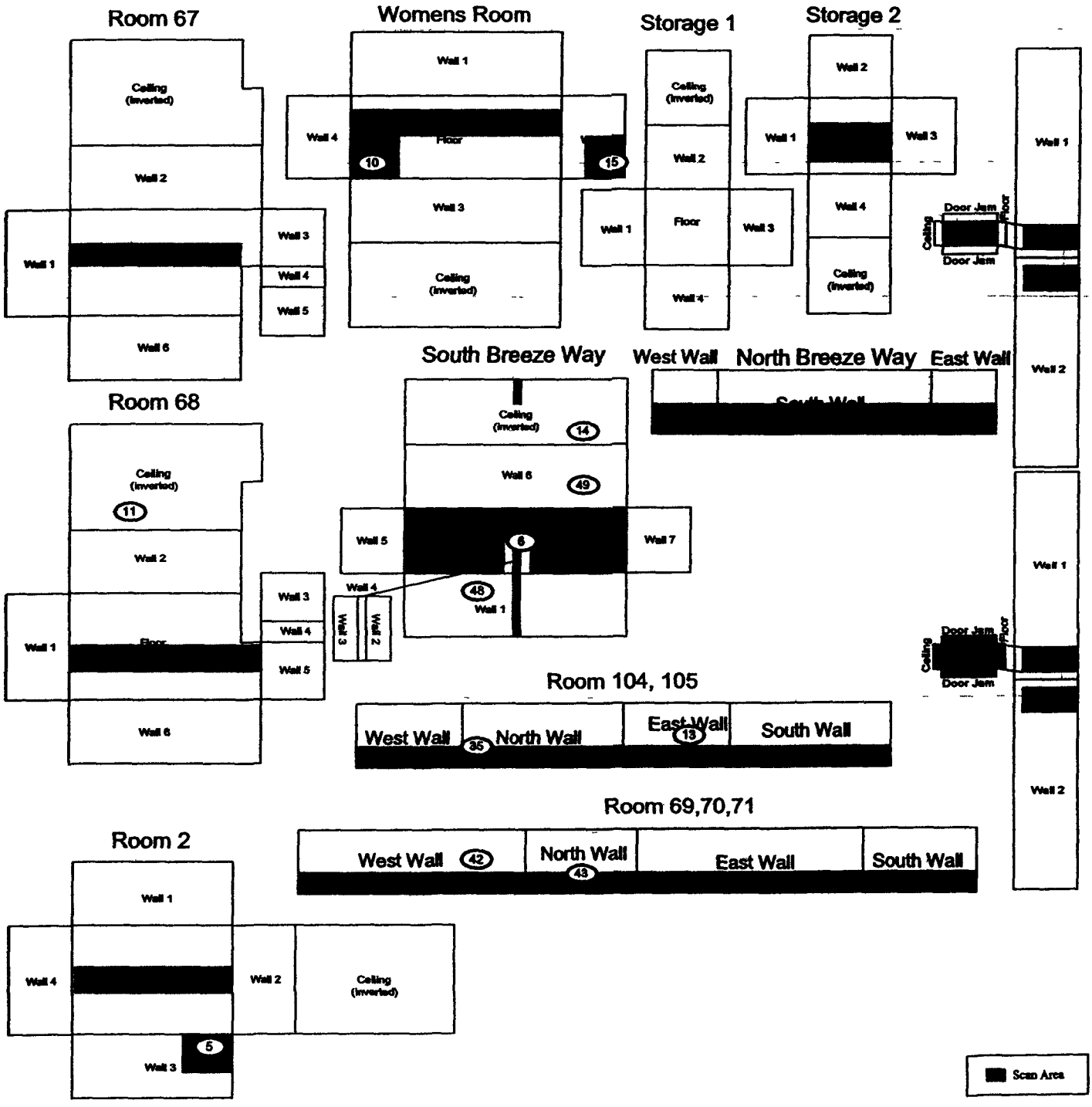
PRE-DEMOLITION SURVEY FOR T130G

Survey Area: 5 **Survey Unit: T130G-A-007** **Classification: 3**
Building. T130G
Survey Unit Description. Interior of T130G
Total Area 4584 sq. m. **Total Floor Area 1402 sq. m.**



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m

U.S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7767 Prepared for:

CH2MHILL Communications Group

MAP ID 03-0085\T130G Pg3-Scn April 16, 2003

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s)
1,2,3,5,6,7

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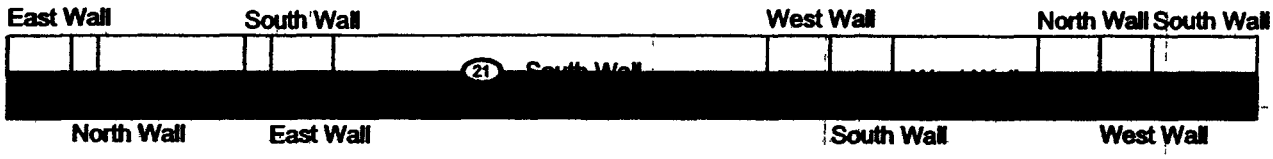
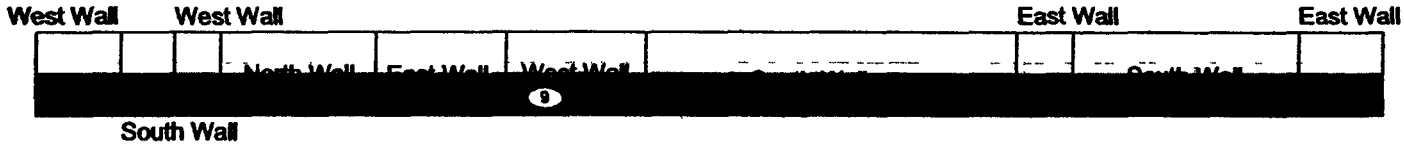
PRE-DEMOLITION SURVEY FOR T130G

Survey Area. 5 **Survey Unit: T130G-A-007** **Classification. 3**
Building T130G
Survey Unit Description Interior of T130G
Total Area 4584 sq m. **Total Floor Area 1402 sq. m**

Rooms 107, 108, 109, 67, 68, and Rest Rooms

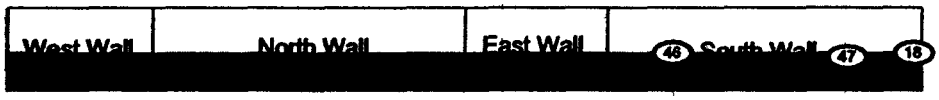


Room 2 and North Breeze Way

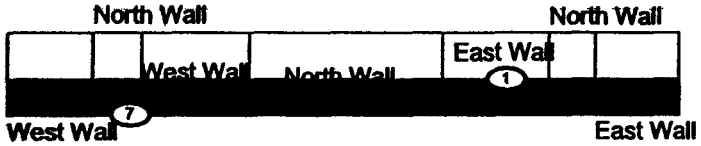


Room 50

Room 53



South Breeze Way, Storage Rooms



Scan Area

SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

U S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL
Communications Group

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s)
1,2,3,5,6,7

MAP ID 03-0085\T130G Pg4-Scn April 16, 2003

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SURVEY UNIT T130H-A-008
RADIOLOGICAL DATA SUMMARY - PDS

Survey Unit Description: T130H Interior

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T130H-A-008
PDS Data Summary

Total Surface Activity Measurements

	62 Number Required	62 Number Obtained	
MIN	-19 7		dpm/100 cm^2
MAX	47 3		dpm/100 cm^2
MEAN	7.5		dpm/100 cm^2
STD DEV	14 0		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	62 Number Required	62 Number Obtained	
MIN	-1 2		dpm/100 cm^2
MAX	4.2		dpm/100 cm^2
MEAN	-0 1		dpm/100 cm^2
STD DEV	1 0		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

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SURVEY UNIT T130H-A-008
TSA - DATA SUMMARY

Manufacturer	NE Tech	NE Tech	NE Tech	NE Tech
Model	DP-6	DP-6	DP-6	DP-6
Instrument ID#	1	4	5	6
Serial #	1589	3104	1256	1261
Cal Due Date	7/8/03	5/11/03	6/30/03	6/19/03
Analysis Date:	2/26/03	2/26/03	2/26/03	2/27/03
Alpha Eff. (c/d)	0.214	0.222	0.234	0.207
Alpha Bkgd (cpm)	2.7	1.3	4.0	0.7
Sample Time (min)	1.5	1.5	1.5	1.5
LAB Time (min)	1.5	1.5	1.5	1.5
MDC (dpm/100cm^2)	48.0	48.0	48.0	48.0

Manufacturer	NE Tech	NE Tech	NE Tech	NE Tech
Model	DP-6	DP-6	DP-6	DP-6
Instrument ID#	7	8	9	10
Serial #	1589	3115	1249	3126
Cal Due Date.	7/8/03	6/4/03	4/5/03	6/4/03
Analysis Date:	2/27/03	2/27/03	2/27/03	2/27/03
Alpha Eff. (c/d):	0.214	0.228	0.205	0.225
Alpha Bkgd (cpm)	2.0	2.7	2.0	1.3
Sample Time (min)	1.5	1.5	1.5	1.5
LAB Time (min)	1.5	1.5	1.5	1.5
MDC (dpm/100cm^2)	48.0	48.0	48.0	48.0

Sample Location Number	Instrument ID#	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1]
1	1	2.7	12.6	8.0	37.4	13.3
2	1	7.3	34.1	6.0	28.0	8.2
3	1	8.7	40.7	4.7	22.0	14.7
4	5	6.0	25.6	7.3	31.2	-0.3
5	1	10.0	46.7	8.0	37.4	20.8
6	5	10.0	42.7	7.7	32.9	16.8
7	1	4.7	22.0	4.0	18.7	-4.0
8	5	2.7	11.5	5.3	22.6	14.4
9	7	5.3	24.8	4.0	18.7	1.2
10	5	5.3	22.6	6.0	25.6	3.3
11	1	6.0	28.0	7.3	34.1	2.1
12	5	13.3	56.8	6.6	28.2	30.9
13	4	4.0	18.0	4.0	18.0	7.9
14	4	4.7	21.2	4.0	18.0	-4.8
15	1	6.0	28.0	5.3	24.8	2.1
16	4	8.7	39.2	6.0	27.0	13.3
17	5	10.0	42.7	5.7	24.4	16.8
18	1	11.3	52.8	7.3	34.1	26.9
19	5	5.3	22.6	8.7	37.2	3.3
20	1	10.7	50.0	8.0	37.4	24.1
21	1	11.3	52.8	8.0	37.4	26.9
22	5	4.7	20.1	3.3	14.1	5.9
23	1	8.7	40.7	6.7	31.3	14.7
24	1	9.3	43.5	8.0	37.4	17.5
25	4	4.7	21.2	5.3	23.9	-4.8
26	5	6.0	25.6	6.0	25.6	-0.3
27	1	8.0	37.4	5.3	24.8	11.4
28	7	6.0	28.0	7.3	34.1	2.1
29	6	6.0	29.0	4.7	22.7	3.0
30	6	1.3	6.3	4.0	19.3	19.7

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SURVEY UNIT T130H-A-008
TSA - DATA SUMMARY

Sample Location Number	Instrument ID#	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1]
31	6	4.7	22.7	0.0	0.0	-3.2
32	6	2.0	9.7	2.7	13.0	16.3
33	9	11.3	55.1	4.0	19.5	29.2
34	8	13.3	58.3	6.7	29.4	32.4
35	9	7.3	35.6	6.0	29.3	9.7
36	8	10.0	43.9	5.3	23.2	17.9
37	9	6.7	32.7	2.7	13.2	6.7
38	8	10.0	43.9	4.7	20.6	17.9
39	9	10.0	48.8	4.7	22.9	22.8
40	8	8.0	35.1	4.0	17.5	9.1
41	9	8.7	42.4	2.7	13.2	16.5
42	8	12.0	52.6	7.3	32.0	26.7
43	9	2.7	13.2	5.3	25.9	12.8
44	8	16.7	73.2	6.7	29.4	47.3
45	8	8.7	38.2	8.0	35.1	12.2
46	9	8.0	39.0	5.3	25.9	13.1
47	8	7.3	32.0	7.3	32.0	6.1
48	9	4.7	22.9	4.7	22.9	-3.0
49	9	8.0	39.0	5.3	25.9	13.1
50	8	10.7	46.9	7.3	32.0	21.0
51	9	2.7	13.2	5.3	25.9	12.8
52	8	11.3	49.6	7.3	32.0	23.6
53	9	6.0	29.3	5.3	25.9	3.3
54	8	6.7	29.4	7.3	32.0	3.4
55	8	7.3	32.0	4.0	17.5	6.1
56	9	3.3	16.1	6.7	32.7	-9.8
57	8	4.0	17.5	8.0	35.1	-8.4
58	8	9.3	40.8	8.0	35.1	14.9
59	9	8.0	39.0	1.3	6.3	13.1
60	9	3.3	16.1	4.0	19.5	-9.8
61	9	6.0	29.3	4.7	22.9	3.3
62	8	6.7	29.4	7.3	32.0	3.4
					25.9	Sample LAB Average
					MIN	-19.7
					MAX	47.3
					MEAN	7.5
					SD	14.0
					Transuranic $DCGL_w$	100

[1] Average LAB used to subtract from Gross Sample Activity

QC Measurements

12 QC	7	4.7	22.0	6.7	31.3	7.8
6 QC	7	7.3	34.1	4.0	18.7	4.3
3 QC	10	4.7	20.9	4.7	20.9	-8.9
21 QC	10	13.3	59.1	3.3	14.7	29.3
27 QC	10	6.7	29.8	6.7	29.8	0.0
					29.8	QC LAB Average
					MIN	0.0
					MAX	29.3
					MEAN	3.4
					Transuranic $DCGL_w$	100

[1] Average QC LAB used to subtract from Gross Sample Activity

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SURVEY UNIT T130H-A-008
RSC - DATA SUMMARY

Manufacturer	Eberline	Eberline	Eberline	Eberline
Model	SAC-4	SAC-4	SAC-4	SAC-4
Instrument ID#	11	12	13	14
Serial #	767	1164	830	952
Cal Due Date	5/13/03	6/17/03	8/25/03	7/9/03
Analysis Date	2/27/03	2/27/03	2/27/03	2/227/03
Alpha Eff (c/d)	0 33	0 33	0.33	0 33
Alpha Bkgd (cpm)	0 4	0 0	0 2	0 1
Sample Time (min)	2	2	2	2
Bkgd Time (min)	10	10	10	10
MDC (dpm/100cm^2)	9 0	9 0	9 0	9 0

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
1	11	0	-1.2
2	12	0	0 0
3	13	0	-0 6
4	14	0	-0 3
5	11	0	-1 2
6	12	0	0 0
7	13	0	-0 6
8	14	0	-0 3
9	11	0	-1 2
10	12	0	0 0
11	13	0	-0 6
12	14	0	-0 3
13	11	0	-1.2
14	12	0	0 0
15	13	1	0 9
16	14	0	-0.3
17	11	0	-1.2
18	12	0	0 0
19	13	0	-0 6
20	14	0	-0.3
21	11	2	1 8
22	12	1	1 5
23	13	0	-0 6
24	14	1	1 2
25	11	0	-1 2
26	12	1	1 5
27	13	1	0 9
28	14	1	1.2
29	11	0	-1 2
30	12	0	0 0
31	13	0	-0 6
32	14	0	-0 3
33	11	0	-1 2

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SURVEY UNIT T130H-A-008
RSC - DATA SUMMARY

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
34	12	0	0 0
35	13	0	-0 6
36	14	1	1 2
37	11	0	-1 2
38	12	0	0 0
39	13	0	-0 6
40	14	1	1 2
41	11	0	-1 2
42	12	0	0 0
43	13	0	-0 6
44	14	3	4 2
45	11	0	-1.2
46	12	0	0 0
47	13	1	0 9
48	14	0	-0 3
49	11	1	0 3
50	12	0	0 0
51	13	0	-0 6
52	14	0	-0 3
53	11	1	0 3
54	12	0	0 0
55	13	0	-0 6
56	14	0	-0 3
57	11	0	-1 2
58	12	1	1 5
59	13	0	-0 6
60	14	1	1.2
61	11	0	-1 2
62	12	1	1 5
		MIN	-1.2
		MAX	4.2
		MEAN	-0 1
		SD	1 0
		Transuranic DCGL$_W$	20

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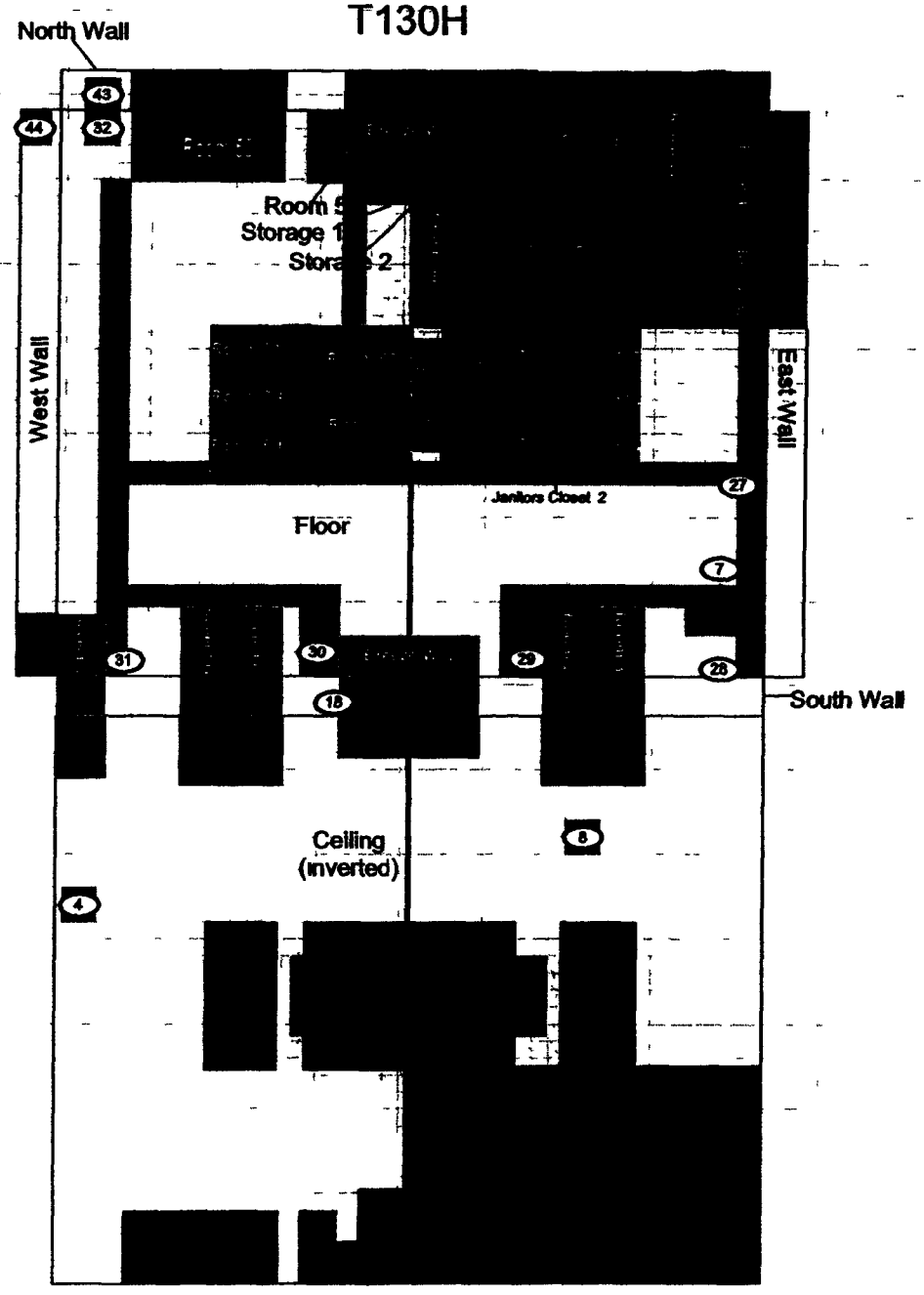
PRE-DEMOLITION SURVEY FOR T130H

Survey Area. 5 **Survey Unit: T130H-A-008** **Classification: 3**
Building. T130H
Survey Unit Description. Interior of T130H
Total Area· 4784 sq. m. **Total Floor Area 1418 sq. m.**



SURVEY MAP LEGEND			
Smear & TSA Location	Neither the United States Government nor Kaiser Hill Co., nor DynCorp I&ET nor any agency thereof, nor any of their employees, makes any warranty express or implied, or assumes any legal liability or responsibility for the accuracy completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.	N	U.S Department of Energy Rocky Flats Environmental Technology Site
Smear, TSA & Sample Location			Prepared by: GIS Dept. 303-966-7707 Prepared for:
Open/Inaccessible Area		0 FEET 45 0 METERS 15	CH2MHILL Communications Group
Area in Another Survey Unit	Scan Survey Information Survey Instrument ID #(s) & RCT ID #(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, & 16	1 inch = 36 feet 1 grid sq = 1 sq m.	MAP ID 03-0085\T130H1-SC April 16, 2003

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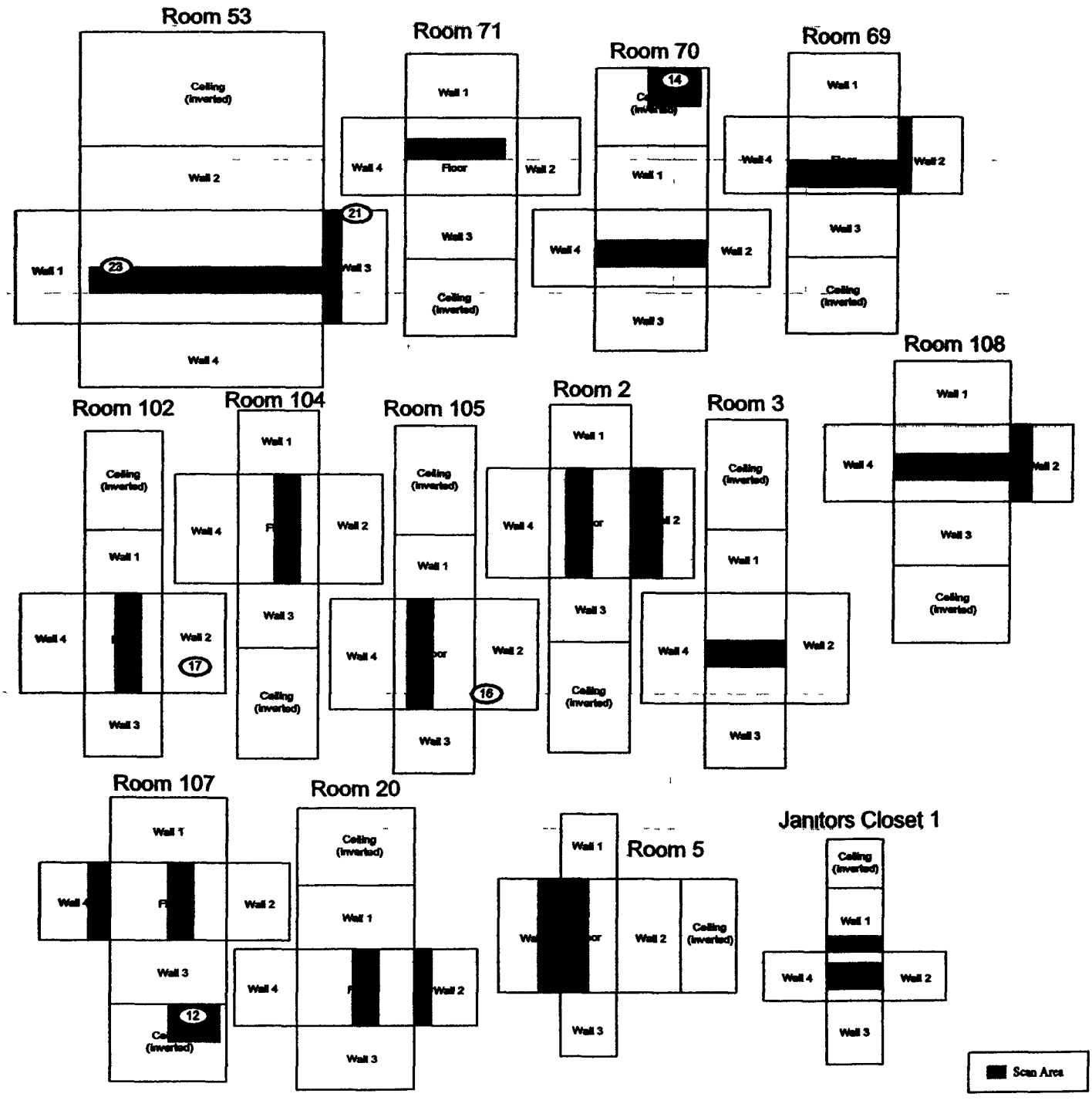
PRE-DEMOLITION SURVEY FOR T130H

Survey Area. 5 **Survey Unit: T130H-A-006** **Classification. 3**
Building T130H
Survey Unit Description Interior of T130H
Total Area 4784 sq m. **Total Floor Area 1418 sq. m.**



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s)
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, & 16

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MAP ID 03-0085\T130H2-SC April 16, 2003

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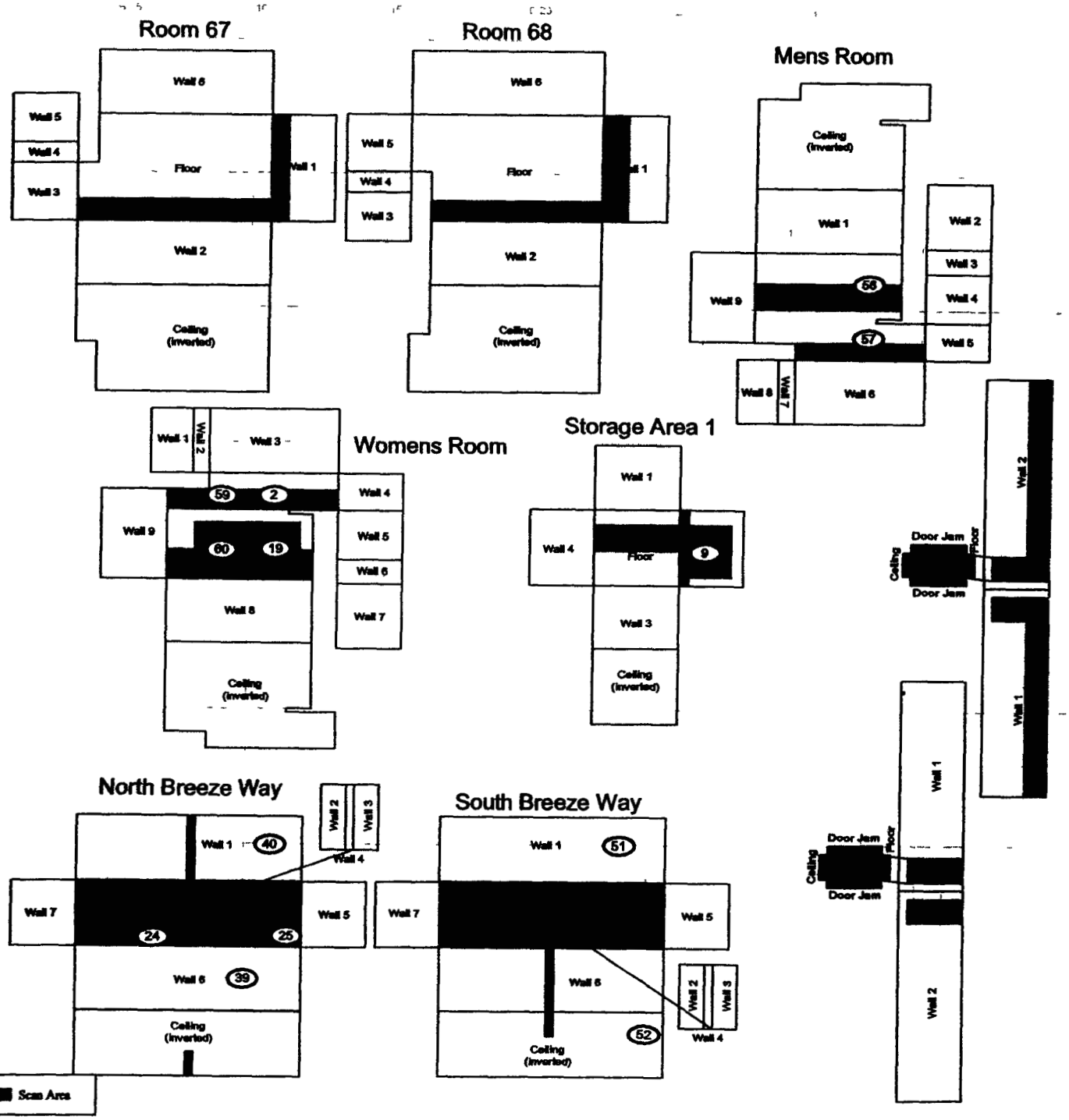
PRE-DEMOLITION SURVEY FOR T130H

Survey Area. 5 **Survey Unit: T130H-A-008** **Classification. 3**
Building· T130H
Survey Unit Description Interior of T130H
Total Area 4784 sq. m. **Total Floor Area 1418 sq m.**



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s)
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, & 16

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Rocky Flats Environmental Technology Site

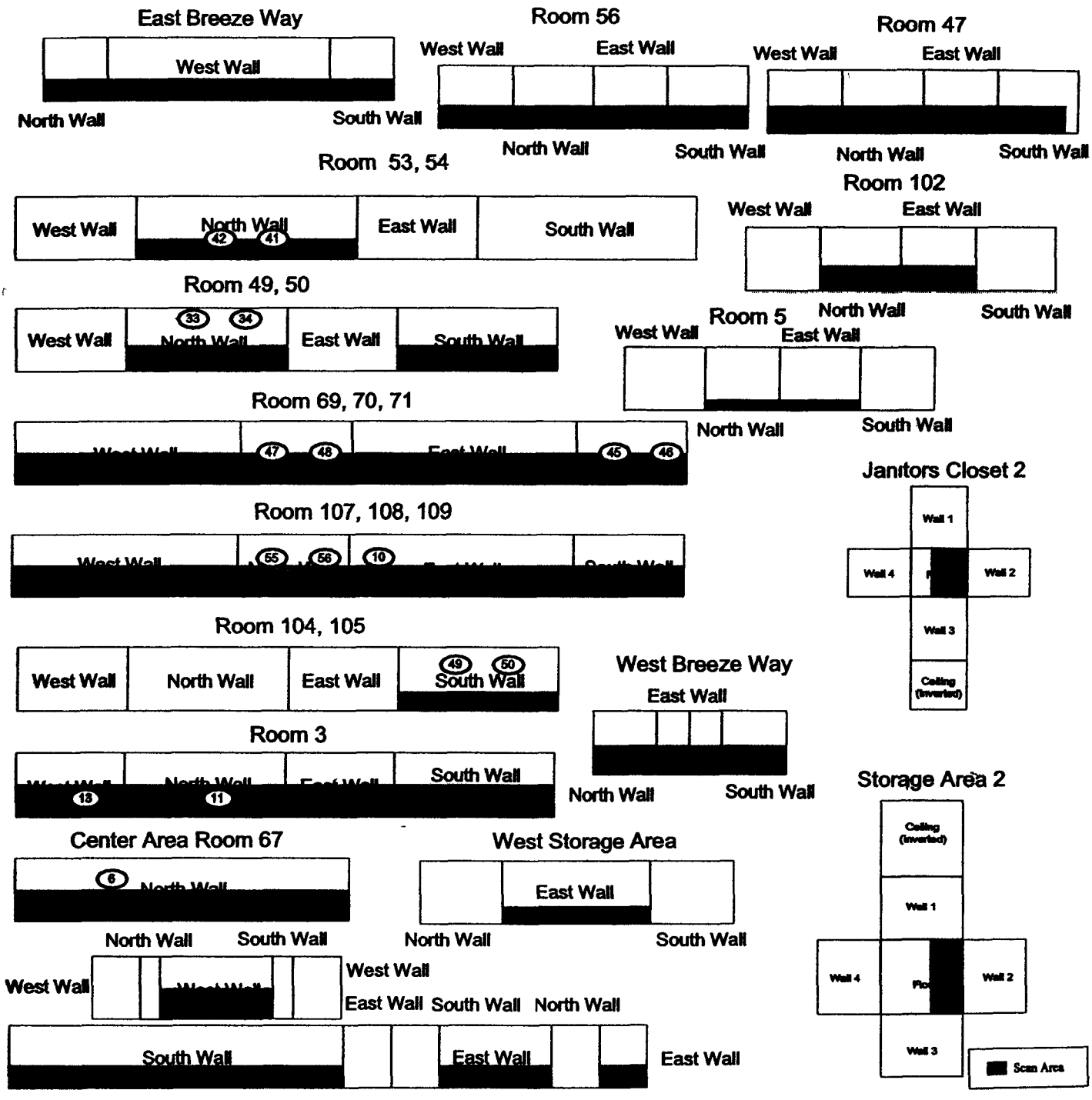
Prepared by: GIS Dept. 303-966-7707 Prepared for:

CH2MHILL Communications Group

MAP ID 03-0085\T130H3-SC April 16, 2003

PRE-DEMOLITION SURVEY FOR T130H

Survey Area. 5 **Survey Unit T130H-A-006** **Classification 3**
Building T130H
Survey Unit Description. Interior of T130H
Total Area 4784 sq. m. **Total Floor Area 1418 sq. m.**



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s)
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, & 16

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Prepared by: GIS Dept. 303-966-7707 Prepared for

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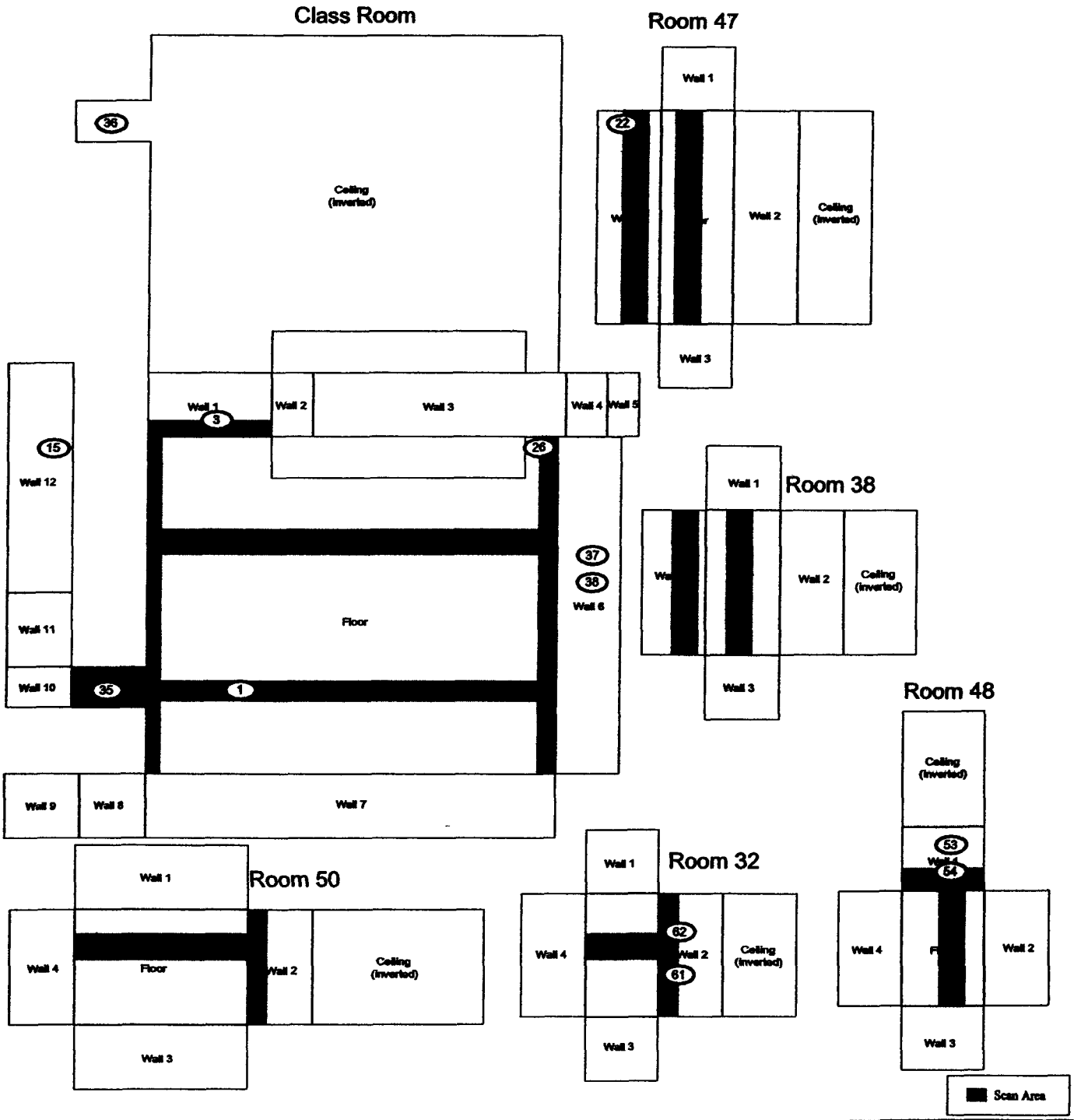
MAP ID 03-0085\T130H3-SC April 16, 2003

PRE-DEMOLITION SURVEY FOR T130H

Survey Area. 5 **Survey Unit: T130H-A-008** **Classification. 3**
Building T130H
Survey Unit Description· Interior of T130H
Total Area· 4784 sq. m. **Total Floor Area. 1418 sq m.**



Scan Area

SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s)
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, & 16

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq m

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Communications Group

MAP ID· 03-0085\T130H4-SC April 16, 2003

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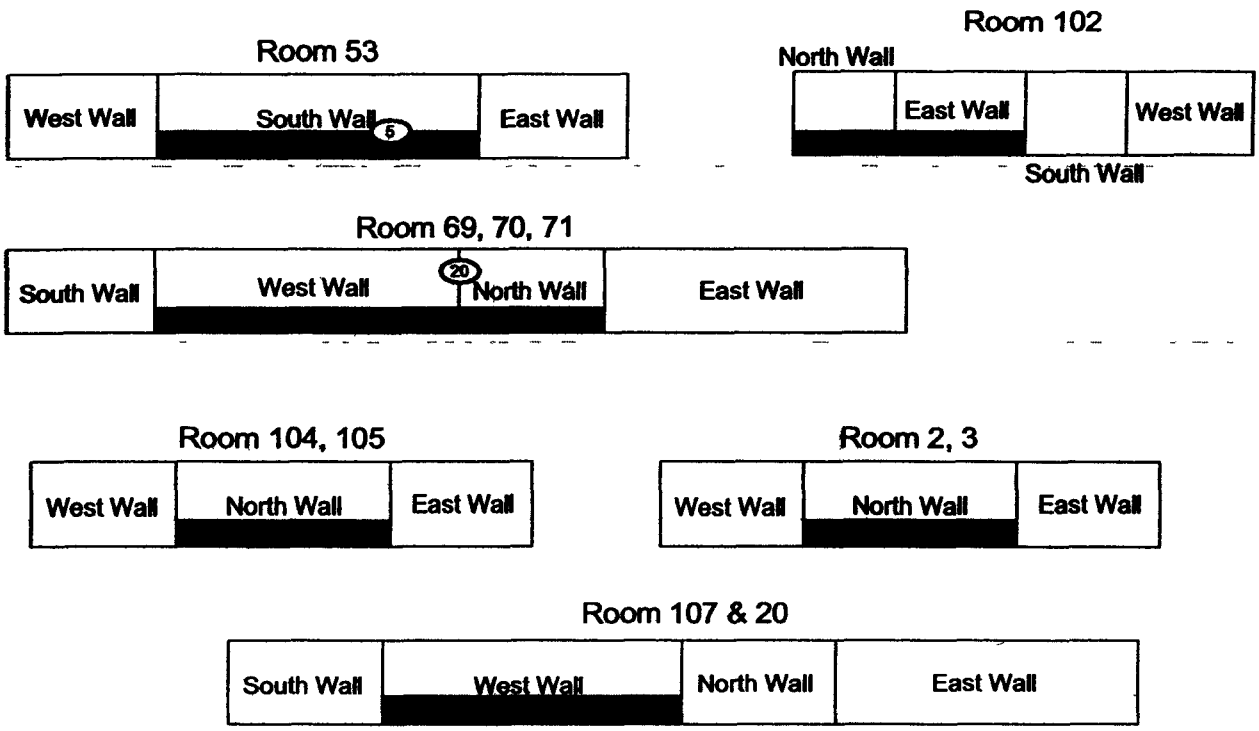
PRE-DEMOLITION SURVEY FOR T130H

Survey Area: 5 **Survey Unit: T130H-A-008** **Classification: 3**
Building. T130H
Survey Unit Description Interior of T130H
Total Area 4784 sq. m. **Total Floor Area 1418 sq. m**



Scan Area

SURVEY MAP LEGEND

- Smear & TSA Location
- Smear TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

Scan Survey Information
Survey Instrument ID #(s) & RCT ID #(s)
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, & 16

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MAP ID 03-0085\T130H6-SC April 16, 2003

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ATTACHMENT D

Chemical Data Summaries and Sample Maps

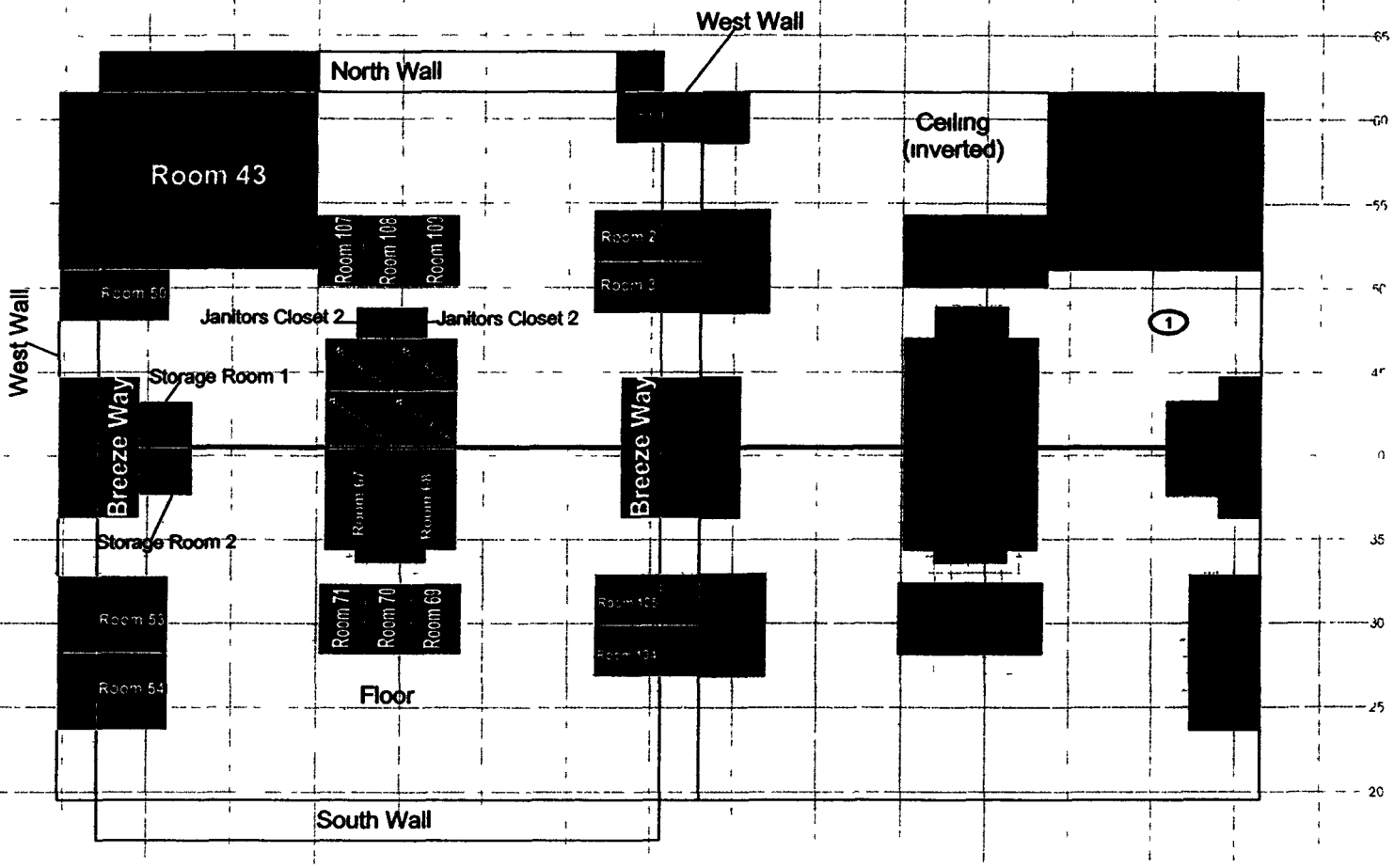
Asbestos Data Summary

Sample Number	Map Location Point	Room	Material Sampled & Location	Analytical Results
Building T130D				
T130D-03272003-315-201	1	Main	2' x 4' white acoustical drop ceiling tile	None Detected
T130D-03272003-315-202	2	43	2' x 4' white acoustical drop ceiling tile	None Detected
T130D-03272003-315-203	3	West Breezeway	White linoleum with white backing	None Detected
T130D-03272003-315-204	4	Men's Room	White linoleum with white backing	None Detected
Building T130E				
T130E-03272003-315-201	1	Main	2' x 4' white acoustical drop ceiling tile	None Detected
T130E-03272003-315-202	2	Janitor's Closet 1	2' x 4' white acoustical drop ceiling tile	None Detected
T130E-03272003-315-203	3	Janitor's Closet 1	White linoleum with white backing	None Detected
T130E-03272003-315-204	4	Janitor's Closet 2	White linoleum with white backing	None Detected

CHEMICAL SAMPLE MAP

Building T130D Interior
Asbestos

T130D



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 45

0 METERS 15

1 inch = 36 feet 1 grid sq = 1 sq m

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Communications Group

Prepared for

MAP ID 03-0065\T130D-1-ASB

April 14, 2003

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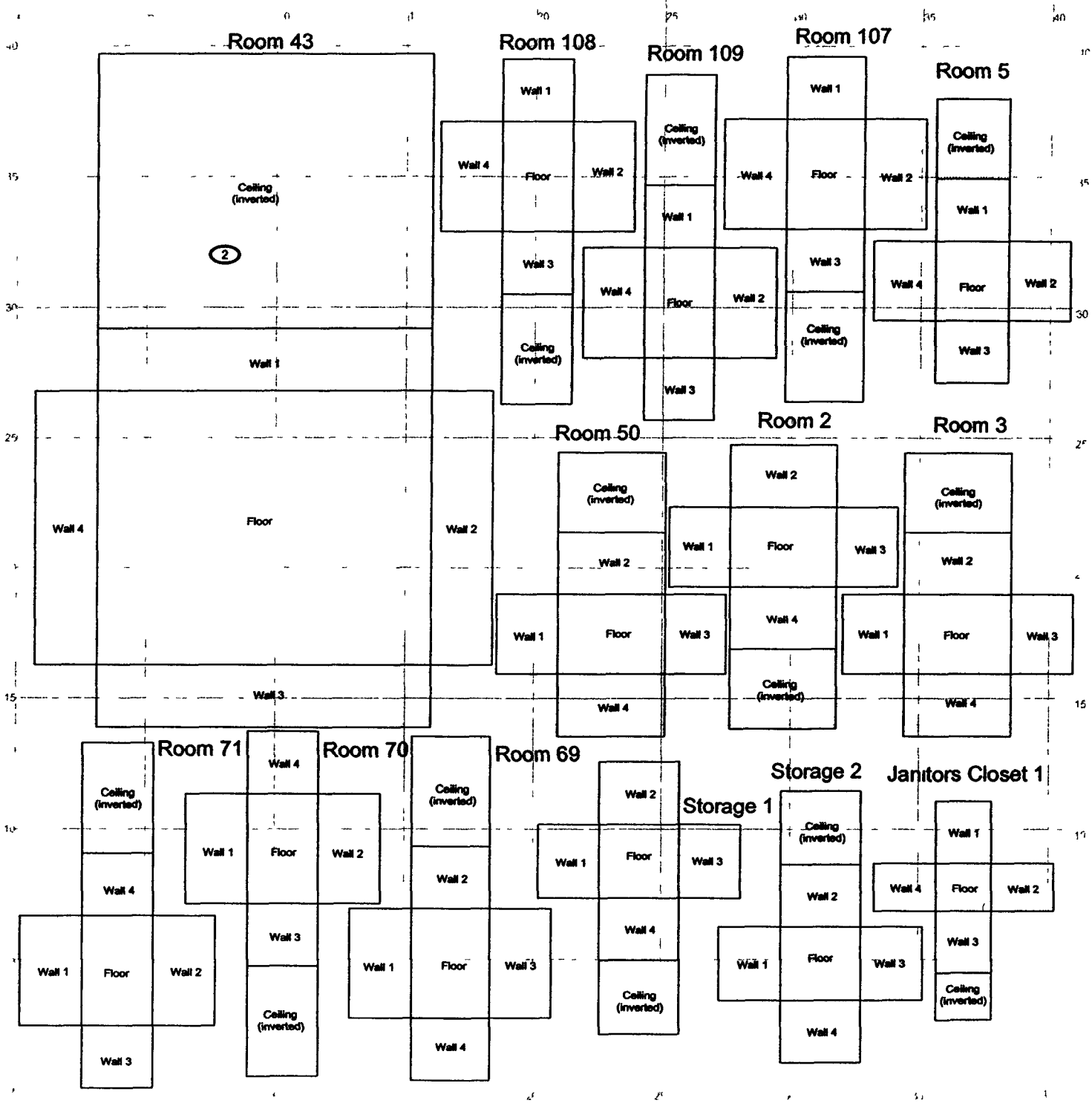
CHEMICAL SAMPLE MAP

Building T130D Interior
Asbestos



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq = 1 sq m

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Prepared for:

CH2MHILL Communications Group

MAP ID 03-0085\T130D-2-ASB

April 14, 2003

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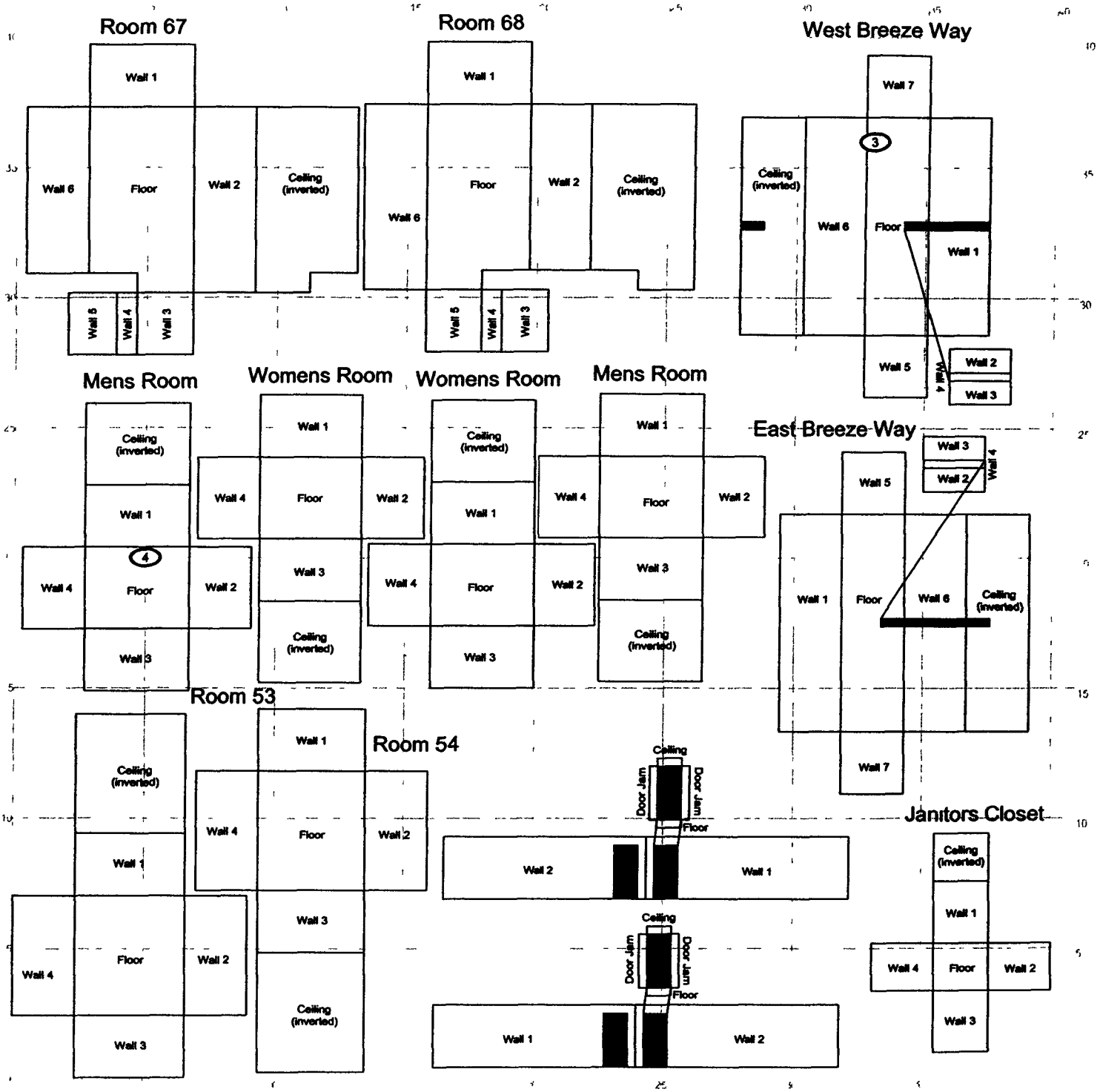
CHEMICAL SAMPLE MAP

Building T130D Interior
Asbestos



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq = 1 sq m

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MAP ID 03-0085\T130D-3-ASB

April 14, 2003

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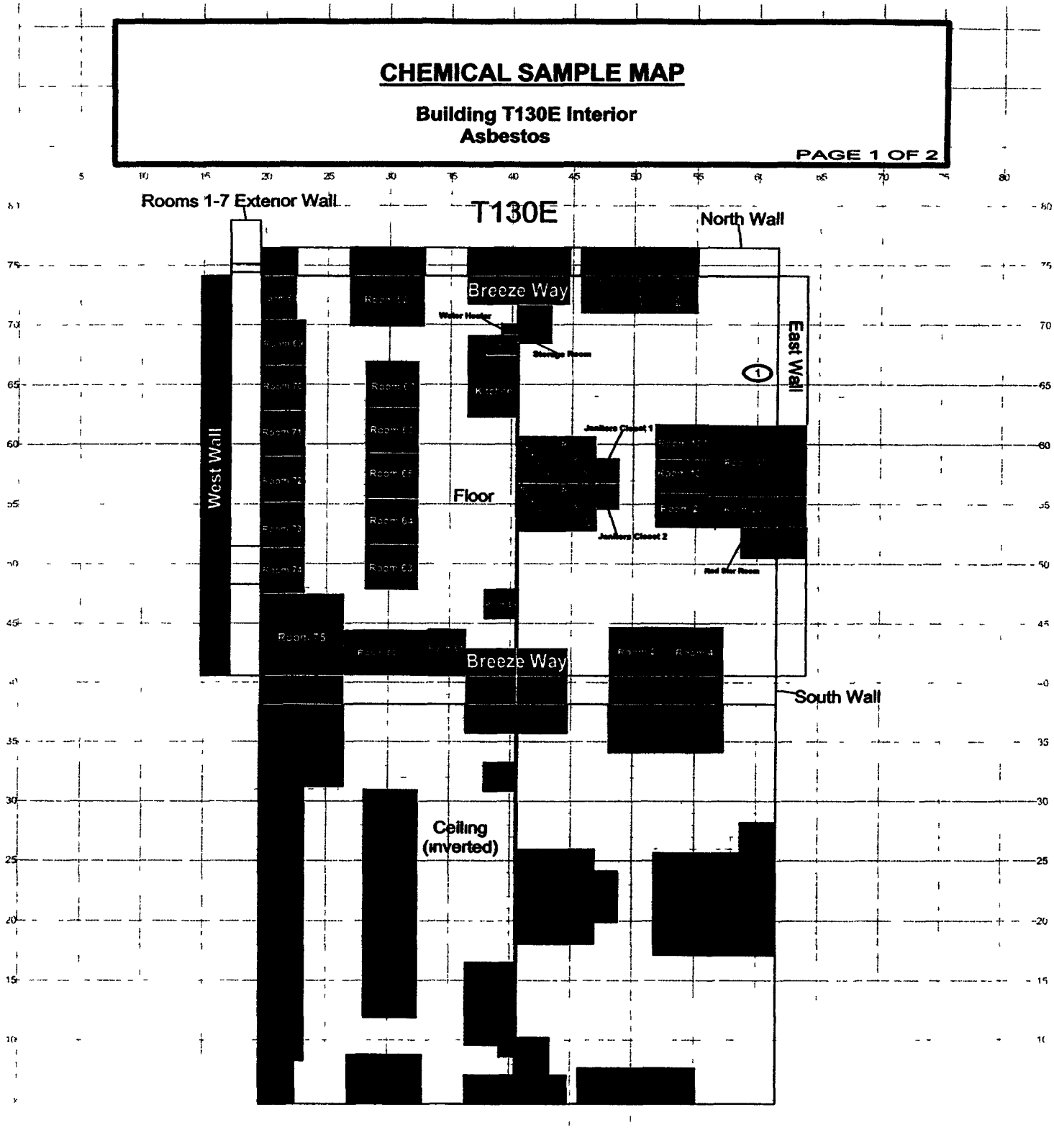
CHEMICAL SAMPLE MAP

Building T130E Interior
Asbestos



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 45

0 METERS 15

1 inch = 36 feet 1 grid sq = 1 sq m

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Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707

Prepared for:

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Communications Group

MAP ID 03-0085\T130E-1ASB

April 14, 2003

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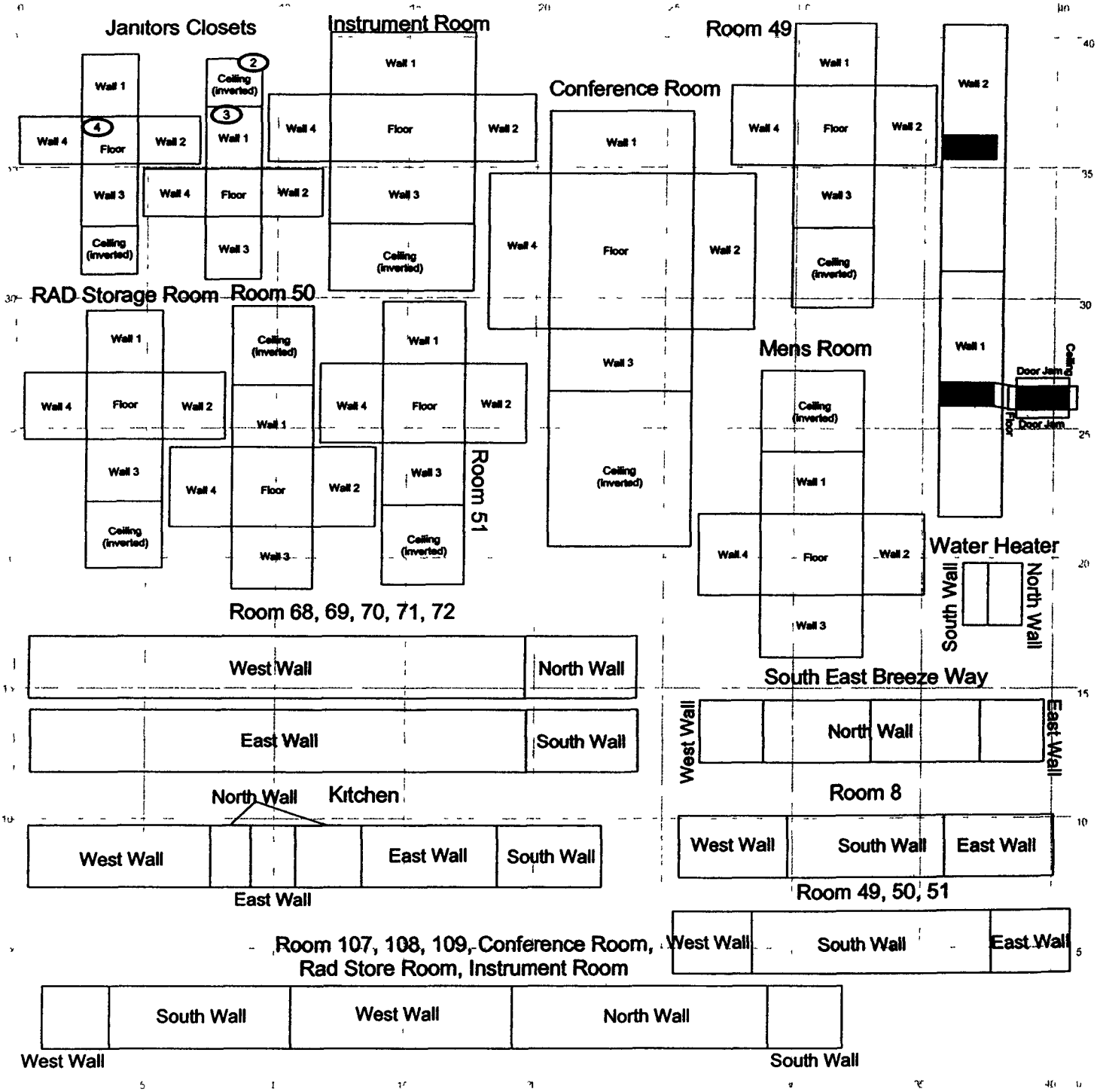
CHEMICAL SAMPLE MAP

Building T130E Interior
Asbestos



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq = 1 sq m

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Rocky Flats Environmental Technology Site

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Prepared for:

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Communications Group

MAP ID 03-0085\T130E-4ASB

April 14, 2003

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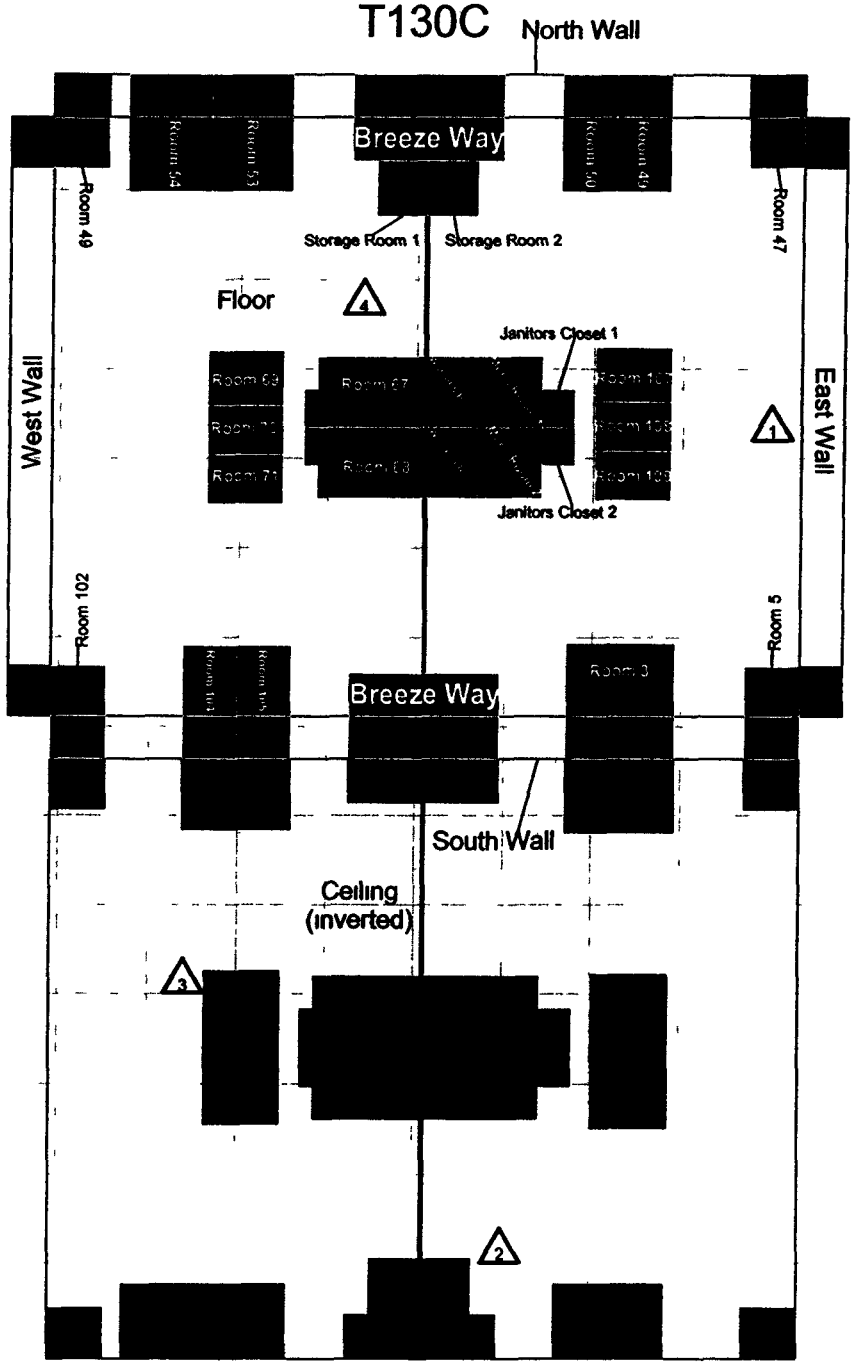
Beryllium Data Summary

Sample Number	Map Point Location	Room	Sample Location	Result ($ug/100\ cm^2$)
Building T130C				
T130C-03272003-315-101	1	Main	Top of metal cabinet above desk	< 0 1
T130C-03272003-315-102	2	Main	On louver of ceiling HVAC diffuser	< 0 1
T130C-03272003-315-103	3	Main	Top of fluorescent light fixture	< 0 1
T130C-03272003-315-104	4	Main	On shelf of mechanical file cabinet	< 0 1
T130C-03272003-315-105	5	North Breezeway	On linoleum	< 0 1
Building T130D				
T130D-03272003-315-101	1	West Breezeway	On white linoleum	< 0 1
T130D-03272003-315-102	2	Main	On ceiling HVAC diffuser	< 0 1
T130D-03272003-315-103	3	Main	On ceiling HVAC diffuser	< 0 1
T130D-03272003-315-104	4	Main	On metal storage cabinet	< 0 1
T130D-03272003-315-105	5	East Breezeway	On white linoleum	< 0 1
Building T130E				
T130E-03272003-315-101	1	Main	On ceiling HVAC diffuser	< 0 1
T130E-03272003-315-102	2	Main	On carpet	< 0 1
T130E-03272003-315-103	3	Main	On Rad OP's metal storage cabinet	< 0 1
T130E-03272003-315-104	4	Main	On ceiling HVAC diffuser	< 0 1
T130E-03272003-315-105	5	24	On wooden window sill	< 0 1
Building T130F				
T130F-03272003-315-101	1	Main	Top of fluorescent light fixture	< 0 1
T130F-03272003-315-102	2	Main	Top of metal cabinet above desk	< 0 1
T130F-03272003-315-103	3	Main	On louver of ceiling HVAC diffuser	< 0 1
T130F-03272003-315-104	4	Main	On louver of ceiling HVAC diffuser	< 0 1
T130F-03272003-315-105	5	East Breezeway	Top of Pepsi dispenser	< 0 1
Building T130G				
T130G-03272003-315-101	1	Main	On louver of ceiling HVAC diffuser	< 0 1
T130G-03272003-315-102	2	Main	Top of fluorescent light fixture	< 0 1
T130G-03272003-315-103	3	Main	On wooden window sill, north wall	< 0 1
T130G-03272003-315-104	4	CERCLA	On louver of ceiling HVAC diffuser	< 0 1
T130G-03272003-315-105	5	Janitor's 2	Top of water heater	< 0 1
Building T130H				
T130H-03272003-315-101	1	Classroom	On carpet	< 0 1
T130H-03272003-315-102	2	Main	Top of fluorescent light fixture	< 0 1
T130H-03272003-315-103	3	Main	On louver of ceiling HVAC diffuser	< 0 1
T130H-03272003-315-104	4	Main	Top of metal lockers, NW corner	< 0 1
T130H-03272003-315-105	5	North Breezeway	On linoleum	< 0 1

CHEMICAL SAMPLE MAP

Building T130C Interior
Beryllium



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 45

0 METERS 15

1 inch = 36 feet 1 grid sq = 1 sq m

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Prepared for:

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Communications Group

MAP ID 03-0085\T130C-1-BE

April 9, 2003

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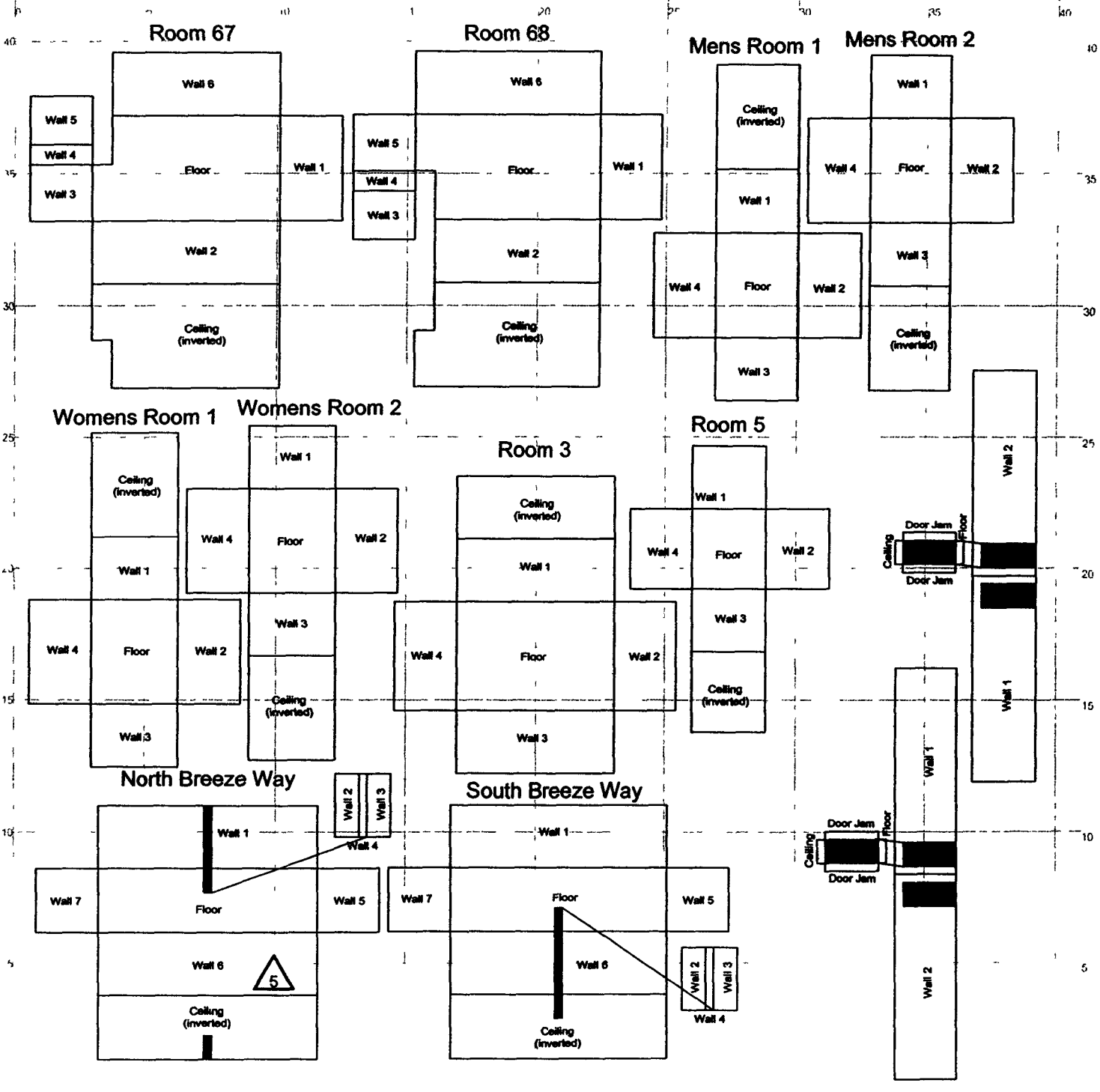
CHEMICAL SAMPLE MAP

Building T130C Interior
Beryllium



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq = 1 sq m

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Prepared for

MAP ID 03-0085\T130C-3-BE

April 9 2003

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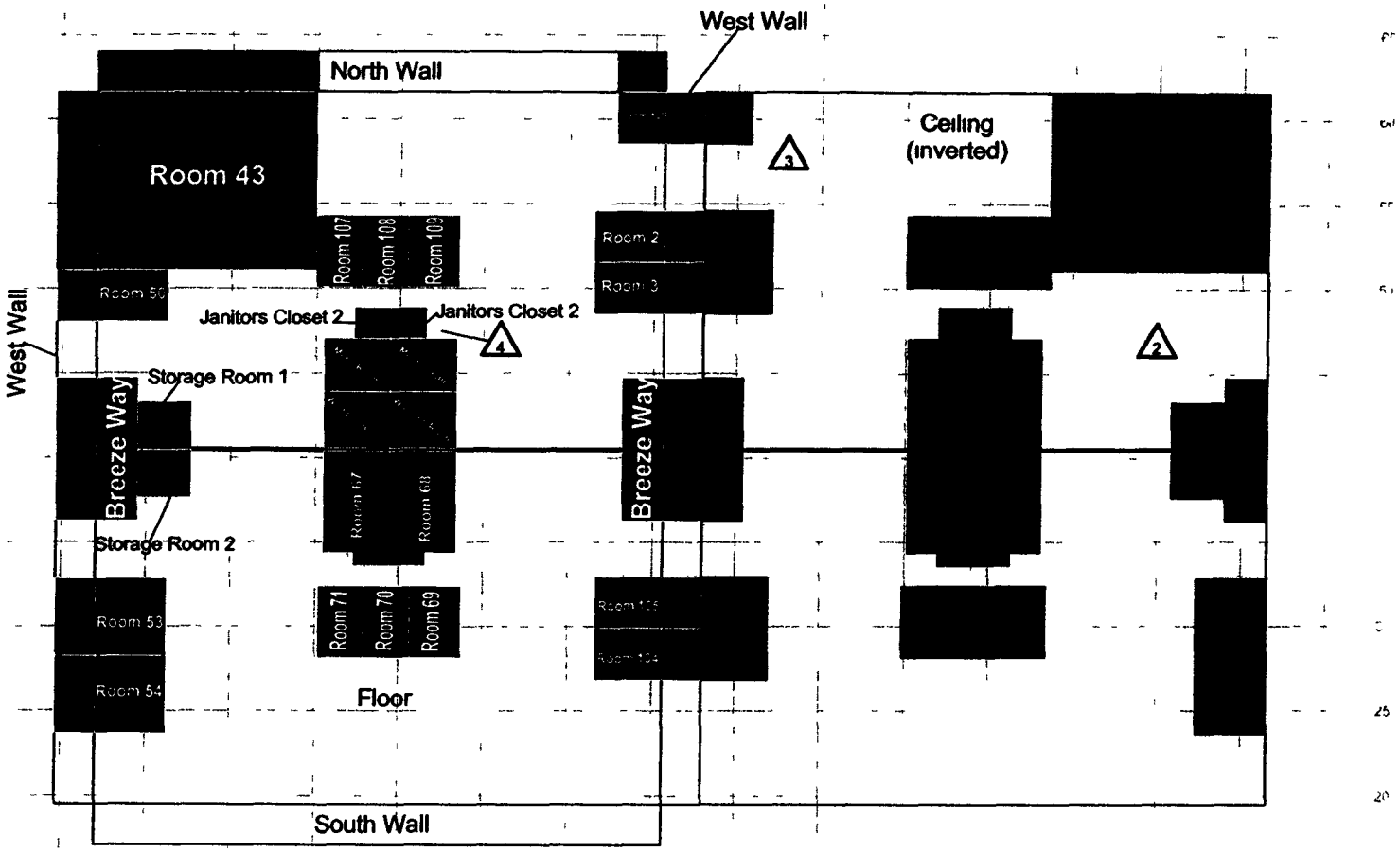
CHEMICAL SAMPLE MAP

Building T130D Interior
Beryllium

T130D



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 45

0 METERS 15

1 inch = 36 feet 1 grid sq = 1 sq m

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Prepared for:

CH2MHILL
Communications Group

MAP ID 03-0085\T130D-1-BE

April 14, 2003

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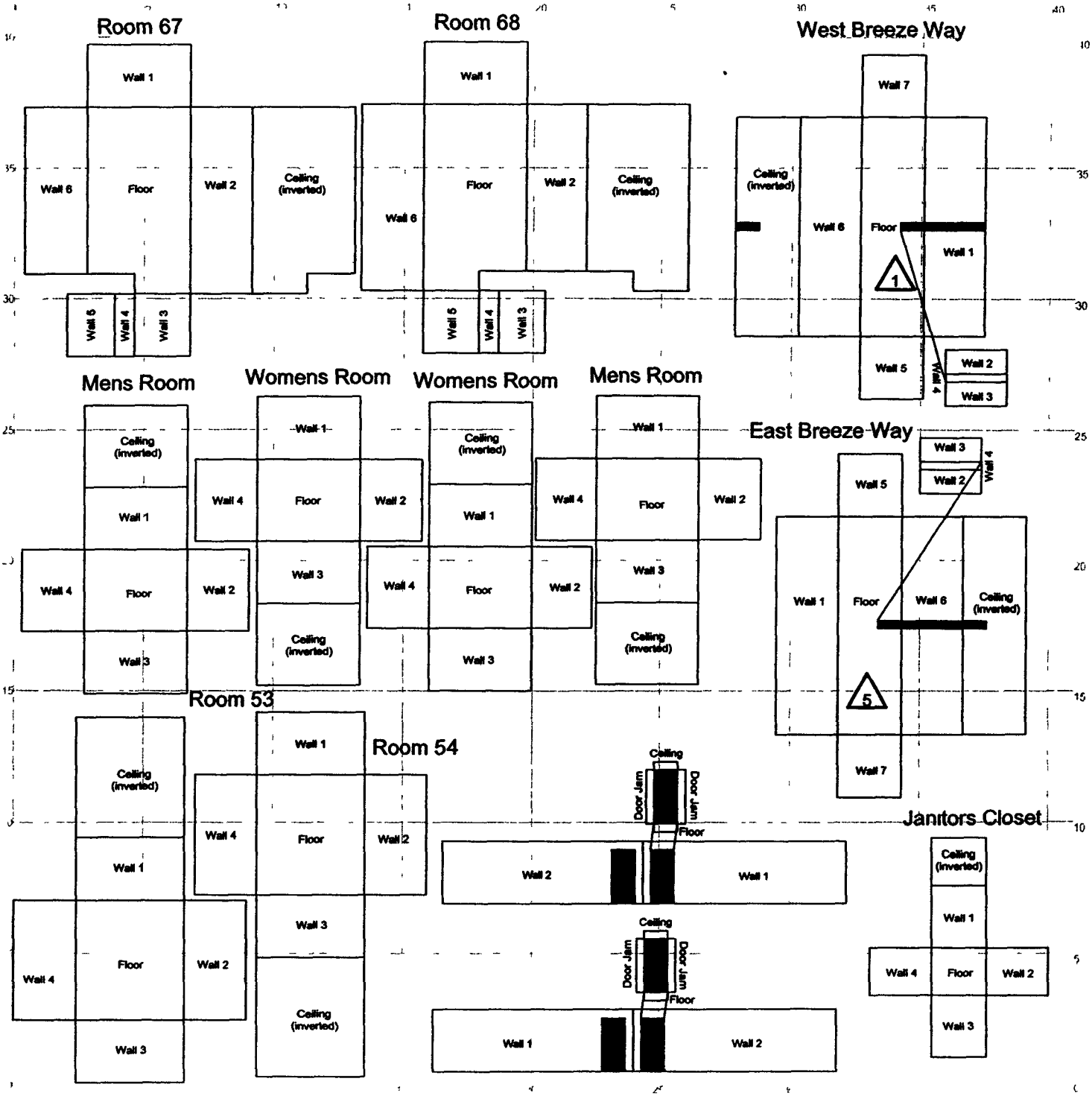
CHEMICAL SAMPLE MAP

Building T130D Interior
Beryllium



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq = 1 sq m.

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Prepared by: GIS Dept. 303-966-7707

Prepared for:

CH2MHILL Communications Group

MAP ID 03-0085\T130D-3-BE

April 14, 2003

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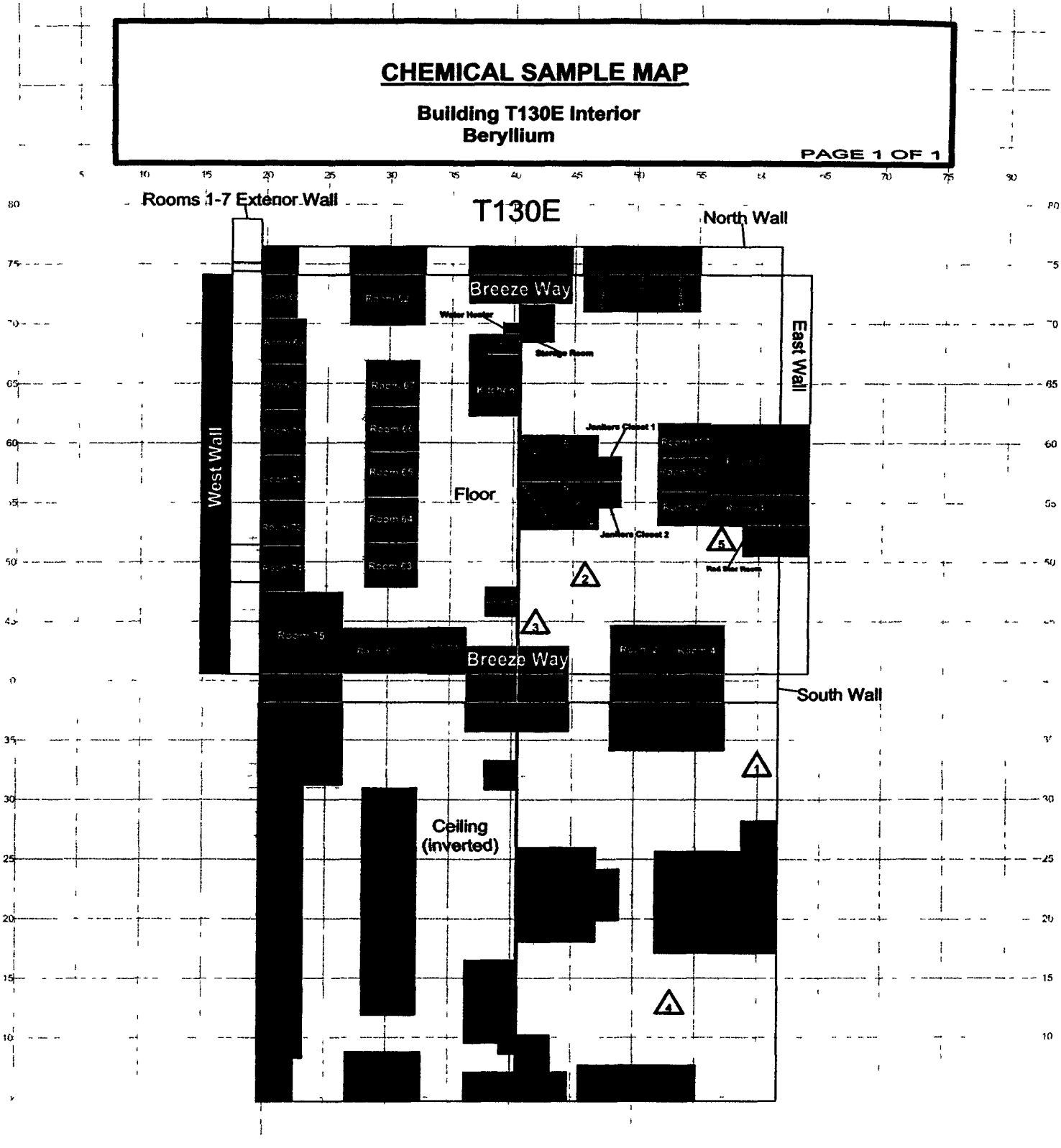
CHEMICAL SAMPLE MAP

Building T130E Interior
Beryllium



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 45

0 METERS 15

1 inch = 36 feet 1 grid sq = 1 sq m.

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Communications Group

Prepared for:

MAP ID 03-0085\T130E-1BE

April 14, 2003

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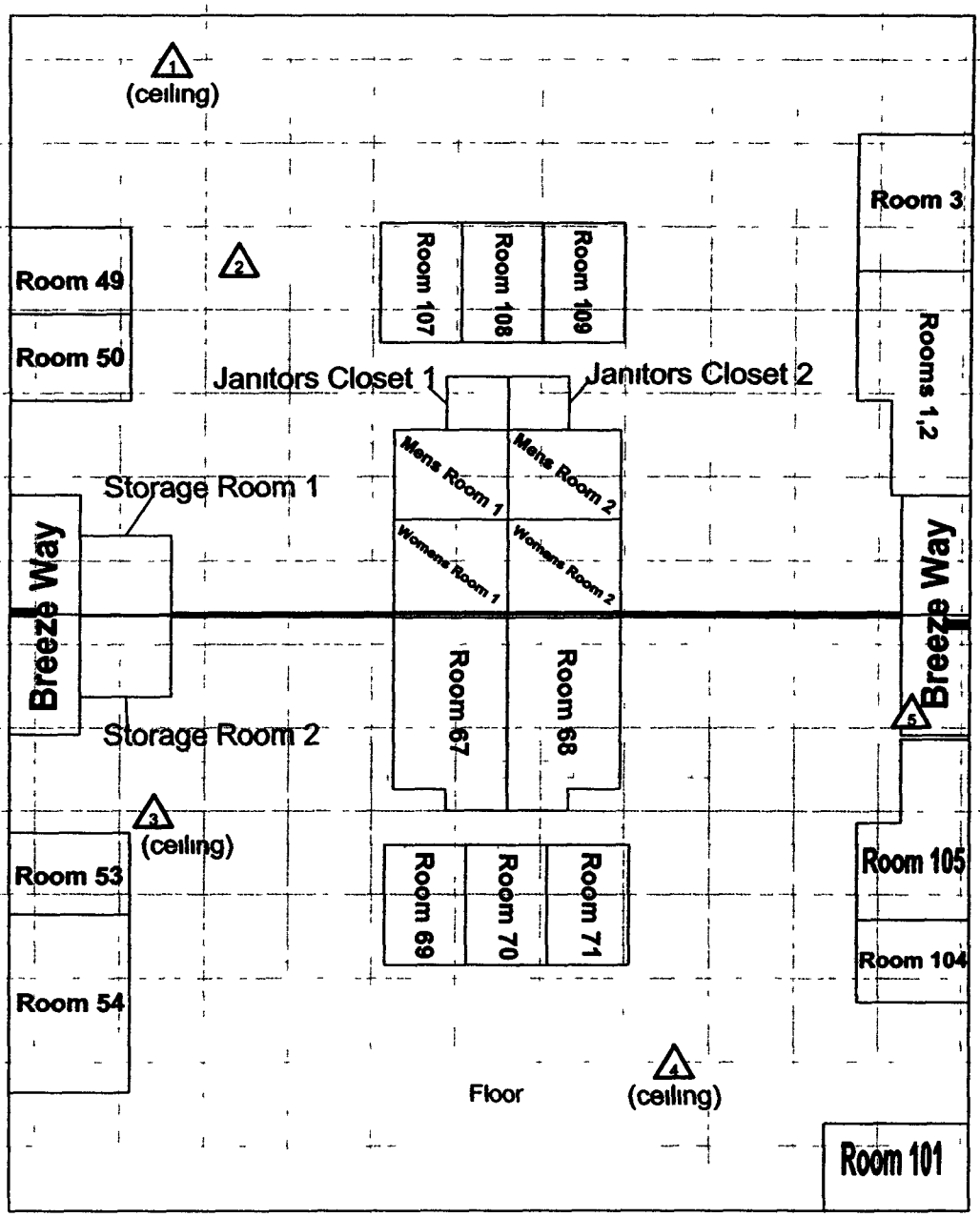
CHEMICAL SAMPLE MAP

Building T130F
Beryllium



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 45
0 METERS 15

1 inch = 36 feet 1 grid sq = 1 sq m

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Communications Group

Prepared for:

MAP ID 03-0085\T130F-FP

April 9, 2003

ATTACHMENT E

Data Quality Assessment (DQA) Detail

DATA QUALITY ASSESSMENT (DQA)

VERIFICATION & VALIDATION OF RESULTS

V&V of the data confirm that appropriate quality controls are implemented throughout the sampling and analysis process, and that any substandard controls result in qualification or rejection of the data in question The required quality controls and their implementation are summarized in a tabular, checklist format for each category of data – radiological surveys and chemical analyses (specifically asbestos and beryllium)

DQA criteria and results are provided in a tabular format for each suite of surveys or chemical analyses performed, the radiological survey assessment is provided in Table E-1, asbestos in E-2, and beryllium in E-3 A data completeness summary for all results is given in Table E-4

All relevant Quality records supporting this report are maintained in the RISS Characterization Project Files This report will be submitted to the CERCLA Administrative Record for permanent storage within 30 days of approval by the Regulators All radiological data are organized into Survey Packages, which correlate to unique (MARSSIM) Survey Units Chemical data are organized by RIN (Report Identification Number) and are traceable to the sample number and corresponding sample location

Beta/gamma survey designs were not implemented for the Area 5, Group 6a facilities based on the conservatism of the transuranic limits used as DCGLs in the unrestricted release decision process Survey designs were implemented based on the transuranic limits used as DCGLs in the unrestricted release decision process All survey results were evaluated against, and were less than the Transuranic $DCGL_w$ (100 dpm/100cm^2) and the Uranium $DCGL_w$ (5,000 dpm/100cm^2) unrestricted release limits

Consistent with EPA's G-4 DQO process, the radiological survey design was optimized by checking actual measurement results (acquired during pre-demolition surveys) against model output with original estimates Use of actual sample/survey (result) variances in the MARSSIM DQO model confirms that an adequate number of surveys were acquired

SUMMARY

In summary, the data presented in this report have been verified and validated relative to the quality requirements and project decisions as stated in the original DQOs All data are useable based on qualifications stated herein and are considered satisfactory without qualification All media surveyed and sampled yielded results less than their associated action levels and with acceptable uncertainties

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Based upon an independent review of the radiological data, it is determined that the original project DQOs satisfied MARSSIM guidance All facility contamination levels were below applicable unrestricted release levels Minimum survey requirements were met, sampling/survey protocol was performed in accordance with applicable procedures, survey units were properly designed and bounded, and instrument performance and calibration were within acceptable limits All results meet the PDS unrestricted release criteria

Chain of Custody was intact, documentation was complete, hold times were acceptable (where applicable,) and packaging integrity/custody seals were maintained throughout the sampling/analysis process Level 2 Isolation Controls have been posted to prevent the inadvertent introduction of contamination into the facilities. On this basis, the Area 5, Group 6a facilities (i e , Trailers T130C, T130D, T130E, T130F, T130G and T130H) meet the unrestricted release criteria with the confidences stated herein The sealed radioactive instrument sources stored in the T130E Emergency Response cabinet(s), as well as the cabinet(s), will be removed prior to the demolition or sale of T130E

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Table E-1 V&V of Radiological Surveys – Area 5 Group 6a Facilities

V&V CRITERIA, RADIOLGICAL SURVEYS		K-H RSP 16 00 Series MARSSIM (NUREG-1575)		[redacted]
QUALITY REQUIREMENTS				
	Parameters	**Measure**	**Frequency**	**COMMENTS**
ACCURACY	initial calibrations	90%<x<110%	≥1	Multi-point calibration through the measurement range encountered in the field, programmatic records
	daily source checks	80%<x<120%	≥1/day	Performed daily/within range
	local area background Field	typically < 10 dpm	≥1/day	All local area backgrounds were within expected ranges (i e , no elevated anomalies)
PRECISION	field duplicate measurements for TSA	≥5% of real survey points	≥10% of reals	N/A
REPRESENTATIVENESS	MARSSIM methodology Survey Units T130C-A-003, T130D-A-004, T130E-A-005, T130F-A-006, T130G-A-007 and T130H-A-008 (interior) and EXT-B-001 (exterior)	statistical and biased	NA	Random w/ statistical confidence
	Survey Maps	NA	NA	Random and biased measurement locations controlled/mapped to ±1m
	Controlling Documents (Characterization Pkg, RSPs)	Qualitative	NA	Refer to the Characterization Package (planning document) for field/sampling procedures (located in Project files), thorough documentation of the planning, sampling/analysis process, and data reduction into formats
COMPARABILITY	units of measure	dpm/100cm^2	NA	Use of standardized engineering units in the reporting of measurement results
COMPLETENESS	Plan vs Actual surveys usable results vs unusable	>95% >95%	NA	See Table E-4 for details
SENSITIVITY	Detection limits	TSA ≤50 dpm/100cm^2 RA ≤10 dpm/100cm^2	all measures	MDAs ≤ 50% $DCGL_w$ per MARSSIM guidelines

Table E-2 V&V of Asbestos Results – Area 5 Group 6a Facilities

V&V CRITERIA, CHEMICAL ANALYSES		DATA PACKAGE		
ASBESTOS	METHOD: EPA 600/R-93/116	LAB ---->	Reservoirs Environmental, Inc	
QUALITY REQUIREMENT		RIN ---->	RIN03Z1304	
		Measure	Frequency	COMMENTS
ACCURACY	Calibrations Initial/continuing	below detectable amounts	≥1	Semi-quantitative, per (microscopic) visual estimation
PRECISION	Actual Number Sampled LCSD Lab duplicates	all below detectable amounts	≥ 8 samples	Semi-quantitative, per (microscopic) visual estimation
REPRESENTATIVENESS	COC	Qualitative	NA	Chain-of-Custody intact completed paperwork, containers w/ custody seals
	Hold times/preservation	Qualitative	NA	N/A
	Controlling Documents (Plans, Procedures, maps, etc)	Qualitative	NA	See original Chemical Characterization Plan (planning document), for field/sampling procedures (located in project file,) thorough documentation of the planning, sampling/analysis process, and data reduction into formats Asbestos samples taken in T130D & T130E are representative of asbestos containing materials in T130C, T130F, T130G & T130H
COMPARABILITY	Measurement Units	% by bulk volume	NA	Use of standardized engineering units in the reporting of measurement results
COMPLETENESS	Plan vs Actual samples Usable results vs unusable	Qualitative	NA	See Table E-4 final number of samples at Certified Inspector's discretion
SENSITIVITY	Detection limits	<1% by volume	all measures	N/A

Table E-3 V&V of Beryllium Results – Area 5 Group 6a Facilities

V&V CRITERIA, CHEMICAL ANALYSES		DATA PACKAGE		
BERYLLIUM	Prep NMAM 7300 METHOD OSHA ID-125G	LAB ---->	Johns Manville, Littleton, Co	
QUALITY REQUIREMENTS		RIN ---->	RIN03Z1305	
		Measure	Frequency	COMMENTS
ACCURACY	Calibrations Initial	linear calibration	≥1	No qualifications significant enough to change project decisions, i e , classification of Type 1 facilities confirmed All results were below associated action levels
	Continuing	80%<%R<120%	≥1	
	LCS/MS	80%<%R<120%	≥1	
	Blanks - lab & field	<MDL	≥1	
	interference check std (ICP)	NA	NA	
PRECISION	LCSD	80%<%R<120% (RPD<20%)	≥1	
	field duplicate	all results < RL	≥1	
REPRESENTATIVENESS	COC	Qualitative	NA	
	hold times/preservation	Qualitative	NA	
	Controlling Documents (Plans, Procedures, maps, etc)	Qualitative	NA	
COMPARABILITY	measurement units	ug/100cm^2	NA	
COMPLETENESS	Plan vs Actual samples usable results vs unusable	>95% >95%	NA	
SENSITIVITY	detection limits	MDL of 0 012 ug/100cm^2	All measures	

Table E-4 Data Completeness Summary - Area 5 Group 6a Facilities

ANALYTE	Building/Area /Unit	Sample Number Planned (Real & QC)[A]	Sample Number Taken (Real & QC)	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc)
Asbestos	T130C (interior)	3 biased (interior)	0	No ACM present, all results are < 1% by volume	Asbestos samples taken in T130D and T130E are representative of asbestos containing materials in T130C, T130F, T130G & T130H
Asbestos	T130D (interior)	3 biased (interior)	4 biased (interior)	No ACM present, all results are < 1% by volume	40 CFR763 86, 5 CCR 1001-10, EPA 600/R-93/116 RIN03Z1304
Asbestos	T130E (interior)	3 biased (interior)	4 biased (interior)	No ACM present, all results are < 1% by volume	40 CFR763 86, 5 CCR 1001-10, EPA 600/R-93/116 RIN03Z1304
Asbestos	T130F (interior)	3 biased (interior)	0	No ACM present, all results are < 1% by volume	Asbestos samples taken in T130D and T130E are representative of asbestos containing materials in T130C, T130F, T130G & T130H
Asbestos	T130G (interior)	3 biased (interior)	0	No ACM present, all results are < 1% by volume	Asbestos samples taken in T130D and T130E are representative of asbestos containing materials in T130C, T130F, T130G & T130H
Asbestos	T130H (interior)	3 biased (interior)	0	No ACM present, all results are < 1% by volume	Asbestos samples taken in T130D and T130E are representative of asbestos containing materials in T130C, T130F, T130G & T130H
Beryllium	T130C (interior)	5 biased (interior)	5 biased (interior)	No beryllium contamination found at any location, all results are below associated action levels	OSHA ID-125G RIN03Z1305 No results above action level (0 2ug/100cm^2) or investigative level (0 1 ug/100cm^2)

Table E-4 Data Completeness Summary - Area 5 Group 6a Facilities

ANALYTE	Building/Area /Unit	Sample Number Planned (Real & QC)[A]	Sample Number Taken (Real & QC)	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc.)
Beryllium	T130D (interior)	5 biased (interior)	5 biased (interior)	No beryllium contamination found at any location, all results are below associated action levels	OSHA ID-125G RIN03Z1305 No results above action level (0 2ug/100cm^2) or investigative level (0 1 ug/100cm^2)
Beryllium	T130E (interior)	5 biased (interior)	5 biased (interior)	No beryllium contamination found at any location, all results are below associated action levels	OSHA ID-125G RIN03Z1305 No results above action level (0 2ug/100cm^2) or investigative level (0 1 ug/100cm^2)
Beryllium	T130F (interior)	5 biased (interior)	5 biased (interior)	No beryllium contamination found at any location, all results are below associated action levels	OSHA ID-125G RIN03Z1305 No results above action level (0 2ug/100cm^2) or investigative level (0 1 ug/100cm^2)
Beryllium	T130G (interior)	5 biased (interior)	5 biased (interior)	No beryllium contamination found at any location, all results are below associated action levels	OSHA ID-125G RIN03Z1305 No results above action level (0 2ug/100cm^2) or investigative level (0 1 ug/100cm^2)
Beryllium	T130H (interior)	5 biased (interior)	5 biased (interior)	No beryllium contamination found at any location, all results are below associated action levels	OSHA ID-125G RIN03Z1305 No results above action level (0 2ug/100cm^2) or investigative level (0 1 ug/100cm^2)

Table E-4 Data Completeness Summary - Area 5 Group 6a Facilities

ANALYTE	Building/Area /Unit	Sample Number Planned (Real & QC)[A]	Sample Number Taken (Real & QC)	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc)
Radiological	Survey Area 5 Survey Unit T130C-A-003 T130C (interior)	32 α TSA (22 random/10 biased) and 32 α Smears (22 random/10 biased) 30 α TSA and 30 α Smears (equipment) 5 QC TSA 5% scan	32 α TSA (22 random/10 biased) and 32 α Smears (22 random/10 biased) 30 α TSA and 30 α Smears (equipment) 5 QC TSA 5% scan	No elevated contamination at any location, all values below PDS unrestricted release levels	Transuranic and/or Uranium DCGLs as applicable
Radiological	Survey Area 5 Survey Unit T130D-A-004 T130D (interior)	32 α TSA (22 random/10 biased) and 32 α Smears (22 random/10 biased) 30 α TSA and 30 α Smears (equipment) 5 QC TSA 5%scan	32 α TSA (22 random/10 biased) and 32 α Smears (22 random/10 biased) 30 α TSA and 30 α Smears (equipment) 5 QC TSA 5% scan	No elevated contamination at any location, all values below PDS unrestricted release levels	Transuranic and/or Uranium DCGLs as applicable

Table E-4 Data Completeness Summary - Area 5 Group 6a Facilities

ANALYTE	Building/Area /Unit	Sample Number Planned (Real & QC)[A]	Sample Number Taken (Real & QC)	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc)
Radiological	Survey Area 5 Survey Unit T130E-A-005 T130E (interior)	32 α TSA (22 random/10 biased) and 32 α Smears (22 random/10 biased) 30 α TSA and 30 α Smears (equipment) 5 QC TSA 5% scan	32 α TSA (22 random/10 biased) and 32 α Smears (22 random/10 biased) 30 α TSA and 30 α Smears (equipment) 5 QC TSA 5% scan	No elevated contamination at any location, all values below PDS unrestricted release levels	Transuranic and/or Uranium DCGLs as applicable
Radiological	Survey Area 5 Survey Unit T130F-A-006 T130F (interior)	32 α TSA (22 random/10 biased) and 32 α Smears (22 random/10 biased) 30 α TSA and 30 α Smears (equipment) 5 QC TSA 5% scan	32 α TSA (22 random/10 biased) and 32 α Smears (22 random/10 biased) 30 α TSA and 30 α Smears (equipment) 5 QC TSA 5% scan	No elevated contamination at any location, all values below PDS unrestricted release levels	Transuranic and/or Uranium DCGLs as applicable

Table E-4 Data Completeness Summary - Area 5 Group 6a Facilities

ANALYTE	Building/Area /Unit	Sample Number Planned (Real & QC)[A]	Sample Number Taken (Real & QC)	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc)
Radiological	Survey Area 5 Survey Unit T130G-A-007 T130G (interior)	32 α TSA (22 random/10 biased) and 32 α Smears (22 random/10 biased) 30 α TSA and 30 α Smears (equipment) 5 QC TSA 5% scan	32 α TSA (22 random/10 biased) and 32 α Smears (22 random/10 biased) 30 α TSA and 30 α Smears (equipment) 5 QC TSA 5% scan	No elevated contamination at any location, all values below PDS unrestricted release levels	Transuranic and/or Uranium DCGLs as applicable
Radiological	Survey Area 5 Survey Unit T130H-A-008 T130H (interior)	32 α TSA (22 random/10 biased) and 32 α Smears (22 random/10 biased) 30 α TSA and 30 α Smears (equipment) 5 QC TSA 5% scan	32 α TSA (22 random/10 biased) and 32 α Smears (22 random/10 biased) 30 α TSA and 30 α Smears (equipment) 5 QC TSA 5% scan	No elevated contamination at any location, all values below PDS unrestricted release levels	Transuranic and/or Uranium DCGLs as applicable